```
6, Appli
(4, Appli
114, Appl
20, Appl
44, Appli
1, Appli
14, Appli
14, Appli
14, Appli
7, Appli
7, Appli
5, Appli
6, Appli
7, Appli
7, Appli
7, Appli
7, Appli
7, Appli
7, Appli
8, Appli
7, Appli
8, Appli
8, Appli
8, Appli
9, Appli
9, Appli
9, Appli
9, Appli
10, Appli
11, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/08775428

Sequence 1, Application US/08775428

Sequence 1, Application US/08775428

Sequence 1, Application Ganesh

APPLICANT: Sath, Wendy

APPLICANT: Bergera, Wendy

APPLICANT: Bergera, Wendy

APPLICANT: Bretterer, Wendy

APPLICANT: Bris, Cabherine

ITILE OF INVENTION: CDNA CLONE HNFUDIS THAT ENCODES

ITILE OF INVENTION: A NOVEL HUMAN 7-TRANSMERANE RECEPTOR

NUMBER OF SEQUENCES: 2

ADDRESSEE: Smithkline Beecham Corporation

STREET: 1098 swedeland Road

STREET: 1098 of Prussia

CONNITY: King of Prussia

STREET: 1098 of Prussia

CONNITR: READABLE FORM:

MEDIUM TYPE: Diskette

COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette

COMPUTER READABLE FORM:

MEDIUM TYPE: OF SWIND DATH:

APPLICATION NUMBER: US/08/775,428

FILING DATE: 09-JNN-1997

CLASSIFCATION:

PRIOR APPLICATION DATH:

APPLICATION NUMBER: 34,344

REFERENCE/DOCKET NUMBER: 34,344
                          Sequence
Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
(7)
                       US-09-077-674-6

US-09-016-434-1148

US-09-170-496D-89

US-09-170-496D-89

US-09-170-496D-89

US-09-077-675A-9

US-09-077-674-9

US-09-077-674-9

US-09-077-674-9

US-09-077-674-9

US-09-122-463-14

US-08-875-540-14

US-08-875-540-14

US-08-932-5

US-08-932-5

US-08-932-5

US-08-939-5

US-08-406-8939-5

US-08-406-8939-5

US-08-422-190-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1191;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
EDNGTH: 1498 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
NO.ECULE TYPE: CDNA
US-08-775-428-1
        10088
110088
111001
111122
11001
110080
11080
11083
11083
11083
11083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
        \\
           Sequence 1, Appli
Sequence 22, Appli
Sequence 284, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 3, Appli
Sequence 1402, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 15, Appli
Sequence 16, Appli
                                                                                                                                                                                                     September 23, 2004, 22:25:34 ; Search time 93.7758 Seconds (without alignments) | 7048.158 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                    US-10-029-436-1_COPY_61_1251
1191
1 atgtggaacagctctgacgc.....gtttccataggctccattag 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Issued Patents NA:*

1. /GghZ 6/ptodata/2/ina/5A_COMB.seq:*

2. /GgnZ 6/ptodata/2/ina/6A_COMB.seq:*

3. /GgnZ 6/ptodata/2/ina/6A_COMB.seq:*

4. /GgnZ 6/ptodata/2/ina/6E_COMB.seq:*

5. /GgnZ 6/ptodata/2/ina/PcTUS_COMB.seq:*

5. /GgnZ 6/ptodata/2/ina/PcTUS_COMB.seq:*

6. /GgnZ 6/ptodata/2/ina/PcTUS_COMB.seq:*

6. /GgnZ 6/ptodata/2/ina/PcTUS_COMB.seq:*

6. /GgnZ 6/ptodata/2/ina/PcTUS_COMB.seq:*
                                              GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-775-428-1

US-09-364425B-22

US-08-016-434-284

US-09-03-058-1

US-09-03-058-1

US-09-03-058-1

US-08-32-001-17

US-08-722-001-17

US-08-722-001-24

US-08-722-001-34

US-08-722-001-34

US-08-722-190-3

US-08-228-932-3

US-08-228-932-3

US-08-228-932-3

US-08-228-932-3

US-08-228-932-3

US-08-244-354-3

US-09-266-855A-3

US-09-266-893-3

US-09-266-893-3

US-09-266-893-3

US-09-266-893-3

US-09-266-893-3

US-09-266-893-3

US-09-007-674-15

US-09-007-674-15

US-09-077-674-14

US-09-077-674-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           682709 segs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                          nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                  IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               seg length: 0
seg length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB
Maximum DB
                                                                                                                                                               OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
No.
                                                                                                                                                                                                                    Run on:
```

Ŧ

91; Conservative 0; Mismatches 0; Indels 0; Gaps 1 ATGTGGAACACCTCTGACGCCAACTTCTCCTGCTACGTTGGT 60	Qy 1081 CTCAATGGTTGCATCAACCCTGTGTTTTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140 Db 1156 CTCAATGGTTCAACCGCTGTGCTCTATGCTCAACCACCACAACCACCAAGCA 1215
ACGCCAACTTCTCCTGCTACCATGAGTCTGTC GGGGGGTGGTGGCTGTGACAGGCACCGTC 	
D-0	RESULT 2 US-09-364-425B-22 ; Sequence 22, Application US/09364425B
CTGTGGACACC	<u> </u>
241 TACCTCCACCTGCACCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 300	AANT: Liaw, Chen W. MYTT: Lin, I-Lin AANT: Lowitz, Kevin P. AANT: Chen, Ruoping
301 TITGCCTCCAATTCTGTCTCCAACCTCTGCCTCATGGCACTGGGACGCTACCTC 360	; TITLE OF INVENTION: Endogenous, Constitutively Activated G Protein-Coupled Orphan R=⊡FL; PILE PERENCE Aren0047; CURRENT APPLICATION NUMBER: US/09/364,425B; CURRENT FILING DATE: 2001-12-18
361 CTCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGAATAGTGCTGGCA 420 	; PRIOR APPLICATION NUMBER: 60/094,879 ; PRIOR FILING DATE: 1998-07-31 ; PRIOR APPLICATION NUMBER: 60/106,300 ; PRIOR FILING DATE: 1998-10-30
	; PRIOR APPLICATION NUMBER: 60/110,906 ; PRIOR FILING DATE: 1998-12-04 ; PRIOR PLING DATE: 1999-02-26
	NUMBER OF SEQ ID NOS: 60 ; SOFTWARE: Patentin Version 3.1 ; SEQ ID NO 22 ; LENGTH: 1382
	TYPE: DNA; Homo sapiens; CRGANISM: Homo sapiens US-09-364-425B-22
Arccacgccaggrcaacaggacacaggcacagacagacaga	Query Match 7.4%; Score 87.8; DB 4; Length 1382; Best Local Similarity 53.7%; Pred. No. 7.3e-15; Matches 182; Conservative 0; Mismatches 157; Indels 0; Gaps 0;
1 AGCATCCACTCCAACCATGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG	OY 100 GGCACCGTGGGCAATGTCCTCACCCTACTGGCCATCCAGCCCAAGCTCCGTACC 159
1 CTGGACAGCATTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT	OY 160 CGAITCAACCTGCTCAIAGCCAACCTCACACTGGTGGTCCTCTGCTGCACGCTCCTT 219
1 GCTGCCACCACCCAGACCTGGAAGGGGACTCATAGAAGTGGGAGACCAGATCAACAGC GCTGCCACCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCCAGATCAACAGC GCTGCCACCACCACCCTGAAACAGGAACTCATAAAAAAAA	OY 220 CAGCCCTTCTGTGGACACCTACCTCCACTGCGCACCGGGACCGGCACCTTCTGC 279
41 AAGAGAGCTAAGCAGTGGCAGAAAAAAAAAAACCCTCCAGAAGCATCTGCCAAAGCCAGGCA 90	QY 280 AGGIATTIGGCICCICCITITIGCCICCAATICIGICCATCCIGACCTCIGCCIC 339
ATTAAAGGGCCAGAAAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 96	Oy 340 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 399 421 ATTGCCATCGACGCTACTATGCTGTACCCTGTACCCCATGGTGTACCCCATGAAGATCACA 480
TGTTTTGCTGTGTTTCGCTTTGCTTTGCTGGGGGGGGGG	QY 400 GCCAAGGGGATAGTGGTGAGCACTGGGTT 438
CACCTGG	RESULT 3 US-08-748-485-2 ; Sequence 2, Application US/08748485

```
347 crcascalacaagricererclascererchercealericelecrererecereriderie 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220 cagoccircicigigaacaccirccaccigcaciggcaccegigccaccirciec 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280 AGGGTATTTGGGCTCCTTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  467 Aactricticteccircticateresersaticaerictecaecatectaacticaeses 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340 AICGCACTGGGAGGCTACCTCCTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arreccarceacecrataracrerereratececarearececareaseasaricaea 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407 crecerringredidaceaactecetaceaagaandearcringsrefraggedec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          287 gróngocnágasákocnágnántántananakonántanakagaagnátónácóntátátát
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   160 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                            FOR THE DETECTION OF SIGNALING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 7.4%; Score 87.8; DB 4; Length 1584; Best Local Similarity 53.7%; Pred. No. 7.8e-15; Matches 182; Conservative 0; Mismatches 157; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/016,434 FILING DATE: HERBWITH CLASSIFICATION:
                                                                                  Sequence 284, Application US/09016434

Patent No. 6500938

Patent No. 6500938

GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION:
TITLE OF INVENTION:
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA
COUNTY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: 37,071
REFERENCE/DOCKET NUMBER: 94.0002 US
FELECOMMUNICATION INFORMATION:
FELECOMMUNICATION INFORMATION:
FELECOMMUNICATION INFORMATION:
FELECOMMUNICATION INFORMATION:
FELECOMMUNICATION INFORMATION:
SEQUENCE (650) 845-4166
INFORMATION FOR SEQ ID NO: 284:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGIH: 1584 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; LIBRARY: BLADNO
; CLONE: 1722180
US-09-016-434-284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              160 CGATTCAACCTGCTCATAGCCAACCTCACAGCTGATCTCCTCTACTGCACGCTCCTT 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        280 AGGGTATTIGGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       467 AACTICTCTGCCCTCTTACCTGCTGATCAGCTCTGCCAGCATGCTAACCCTGGGGTC 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     287 grendecindegaaaceregiearearearearearearearearaaaaaareeraeereeeee 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          347 crcaccaacaagricercricaeccieacriciercaacricciecrererecending 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220 CAGCCCTTCTCTGTGGACACCTGCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             340 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCTTAAGCTTTTCCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     527 arridicarcidacidizardicargicorgracicoardigionacionarganda 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCATGCCAGCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407 creccritireregicaceaecriccaricceaegaaridaarciriigidiaagigaege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 7.4%; Score 87.8; DB 1; Length 1584; Best Local Similarity 53.7%; Pred. No. 7.8e-15; Matches 182; Conservative 0; Mismatches 157; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          eggaaccesecrerearescarinereracarcrescri 625
                  GENERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Guegler, Karl J.
APPLICANT: Guegler, Karl J.
APPLICANT: Murry, Lynn E.
TITLE OF INVENTION: NOVEL HISTAMINE H2 RECEPTOR NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARACEUTICALS, INC.
                                                                                                                                                                                                                                                      COUNTRY APPLIANCE THOUGH AND ADDRESSEE: 1174 POTTER DHARMACEUTICALS, INC.
STREET: 3174 POTTER DIVE
CITY: PAIO ALO
STATE: CA
COUNTRY: US
ZIP: 94304
COMPUTER: READABLE FORM:
MEDIUM TYPE: DISKETTE
COMPUTER: BM COMPATION:
OPERATING SYSTEM: DOS
SOFTWARE: FRASEQ VERSION 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/748,485
FILING DATE: HERWITH
CLASSIFICATION BATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/748,485
FILING DATE: HERWITH
CLASSIFICATION BATA:
APPLICATION NUMBER: SELECOMMUNICATION:
NAME: BILLINGS, LUCY J. 749
REGISTRATION NUMBER: 36,749
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: 36,749
TELECOMMUNICATION INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 1584 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLONE: 1722180
US-08-748-485-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: Consens
Patent No. 5817480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        400
```

셤

à

g

à

임 δ

ò

à

219

```
225 CCTGGGGAAACCTGGTCATCGTGGTCACCTTGTACAAGAAGTCCTACCTCTCACCCTCA 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              224 CCTTCTCTGTGGACACCTACCTCCACCTGGCGCACCGGTGCCACCTTCTGCAGGG 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 crirrargardadoracciccarcocadosariosarcrirosistrasargadoracia 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 284 TATTIGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTCTGCCCTCCTCTACCTGCTGATCAGCTCTGCCAGCATGCTAACCCTCGGGGGTCATTG 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      104 CCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            164 TCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          285 GCAACAAGTTCGTCTTCAGCCTGACTCTGTCCAACTTCCTGCTGTCGTGTTGGTGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 87; DB 2; Length 248
Pred. No. 1.6e-14;
0; Mismatches 155; Indels
                                                                                                                                                                                                                                                                                                                                            APPLICANT: SOPPET, DANIEL R
TITLE OF INVENTION: ADRENERGIC RECEPTOR
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESSE:
ADDRESSEE: Carella, Byrne, Bain, Gilfillan, Cecchi,
ADDRESSEE: Stewart & Olstein
STREET: 6 Becker Parm Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: NJ
COUNTRY: USA
ZID: 07068-1739
COMPUTER: PLOEDY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/030,582
              404 AGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 438
                                                                           525 Accedecrereadecacracicarciescri 559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           325800-324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/467,568
FILING DATE:
ATORNEY/AGENT INFORMATION:
NAME: PEFERACY Gregory D
REGISTRATION NUMBER: 35.134
REFERENCE/DOCKET NUMBER: 35.500-:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                           Sequence 1, Application US/09030582
Patent No. 5994506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID 994-1744
INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 2481 here
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 7.3%;
Best Local Similarity 53.7%;
Matches 180; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
101..1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Roseland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: lin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
LOCATION:
                                                                                                                                                                                                                 US-09-030-582-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-030-582-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE
              à
                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    225 CCTGGGGAAACCTGGTCATCGTCACCTTGTACAAGAAGTCCTACCTCCTCACCTCA 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            164 TCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGC 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224 CCTTCTCTGTGGACACCTACCTCCACCTGGCGCACCGGTGCCACCTTCTGCAGGG 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     345 CTTTTGTGGTGACGAGCTCCATCGCAGGGAATGGATCTTTGGTGTAGTGTGCTGCACT 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          104 CCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCCATCCAGCTCCGTACCCGAT 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             285 GCAACAAGTÍCGÍCTICÁGCCÍGACITCÍTCAACTÍCCÍGCIGICGGGTÍGGÍGCIGC 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344 CACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCA 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rcrerecercerenacracereareacerereceaceacareceraceaceres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       465 ccarccacción de reservace de contra de con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATTTGGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCAATCCTGACCCTCTGCCTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                             RESULT 5
US-08-467-568-1
; Sequence 1, Application US/08467568
; Patent No. 5817477
; GENERAL INFORMATION:
APPLICANN: SOPPET, DANIEL R
TITLE OF INVENTION: ADERNERGIC RECEPTOR
NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: Carella, Byrne, Bain, Gilfillan, Cecchi,
ADDRESSEE: Stewart & Olstein
STREET: 6 Becker Farm Road
CITY: Roseland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 7.3%; Score 87; DB 1; Length 2481; Best Local Similarity 53.7%; Pred. No. 1.6e-14; Matches 180; Conservative 0; Mismatches 155; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATCHTION PG-DOS/MS-DOS
SOFTWARE: PATCHTION DATA:
APPLICATION NUMBER: US/08/467,568
FILING DATE: 06-JUN-1995
CLASSIFICATION: 514
ATCHING NUMBER: 36,134
REGISTRATION NUMBER: 36,134
REGISTRATION NUMBER: 36,134
REFERENCE/POCKET NUMBER: 325800-324
TELEFHONE: 201-994-1700
TELEFRA: 201-994-170
                                                                 587 degaaccedecrererescacionarescribares
   400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 2481 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 07068-1739
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
101..1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY:
; LOCATION:
US-08-467-568-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     405
ò
                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
```

ò 셤

d

```
183 eccarcinedecialcarcinamicaricarionaridadecineciales decarcinecidades 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243 cccaccaactactricatretaacteaecareeceaecareidecterereaectroaccere 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       creccirichcaeceeccrasaasiechcescraciessessessessarchicher 362
160 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220 cagocorroragacacaceraceraceraceraceraceracecacegeraceraceracerace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                          ALPHAIC ADRENERGIC RECEPTOR ANTAGONISTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.0%; Score 83; DB 1; Length 921;
52.1%; Pred. No. 1.4e-13;
iive 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/722,001
                                                                                                                             525 Accedecrerendecacinereracarciedeni 559
                                                                                    404 AGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Rahway
CITY: Rahway
STATE: New Jersey
COUNTRY: United States of America
ZIP: 07065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PELING DATE:
CLASSIFICATION: 514
PRICASIFICATION DATA:
APPLICATION NUMBER: 08/229,276
FILING DATE: 14-ARR-1995
ATTORNEY/AGENT INFORMATION:
NAME: APPOLITION NUMBER: 34,087
REGISTRATION NUMBER: 34,087
REBERENCE/DOCKET NUMBER: 19169Y
TELEPHONE: (908)594-3462
TELEPHONE: (908)594-3462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                     APPLICANT: Thompson, Wayne J.
APPLICANT: Huff, Joel R.
APPLICANT: Nerenberg, Jennie B.
APPLICANT: Lee, Hee-Yoon
APPLICANT: Bell, Ian M.
TITLE OF INVENTION: ALPHAIC ADREN
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                Sequence 17, Application US/08722001
Patent No. 5760054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Merck & Co., Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 138825
INFORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 921 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 52.1'
Matches 185; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: CDNA HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; HYPOTHETICAL: N
; ANTI-SENSE: NO
US-08-722-001-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                 δ
                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            104 CCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGAT 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225 ceregogaaacciogicardigogeaccirioracaagaagreeraccieereaccice 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             164 TCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGC 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        285 gcaacaacaricercrrcaccreacricaccaacriccrercrerccardricerecreic 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224 CCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCCCCGGTGCCCACCTTCTGCAGGG 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       345 critreregidaceaecrecarecaecaaesaarearerregigireregidaacr 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        284 TATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCTTTGCCTCATCG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      405 rereridencerietracergareareagerierideceageareareagerieageriearearea 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      344 CACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCA 403
                 CACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCA 403
                                                        465 ccalcaccatallargengicengracceargagaetele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 87; DB 5; Length 2481;
Pred. No. 1.6e-14;
0; Mismatches 155; Indels
                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Adrenergic Receptor
NUMBER OF SEQUENCES:
CORRESPONDENCES:
ADDRESSEB: CARELLA, BYRNE, BAIN, GILFILLAN,
ADDRESSEB: CECCHI, STEWRT & OLSTEIN
STREET: 6 BECKER FARM ROAD
CITY: ROSELAND
STATE: NEW JERSEY
COUNTRY: USA
                                                                                                                404 AGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 438
                                                                                                                                                           szs Accedecreficardecacireireracarciedeni sso
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CONFUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
COMPUTER: 1BM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/0905:
FILING DATE: Submitted herewith
                                                                                                                                                                                                                                                                                 Sequence 1, Application PC/TUS9409051 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: FERRALO, GREGORY D.
REGISTRATION NUMBER: 36.134
REFERENCE/DOCKET NUMBER: 3258(
TELECOMUNICATION INFORMATION:
TELEPHONE: 201-994-1740
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
LENGTH: 2481 BASE PAIRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
7.3%;
Best Local Similarity 53.7%;
Matches 180; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: Submitted
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEIC ACID
EDNESS: SINGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: LINEAR MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS
                                                                                                                                                                                                                                                             PCT-US94-09051-1
```

g

g ò

δ

d

ò g ò

```
243 CCCACCAACTACTTCATTGTCAACCTGGCCATGGCCGACCTGCTGTTGAGGTTCACGGTC 302
                                                                                                       303 CTGCCCTTCTCAGCGCCCCTAGAGGTGCTCGGCTACTGGGTGCTGGGGCGGATCTTCTGT 362
                                                                                                                                                  280 AGGGTATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 339
                                                                                                                                                                                                                                     340 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                           423 Arcricaricaridatracaridadaracacaraciricaracianiscana (482)
                                                                 220 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC
                                                                                                                                                                                          363 GACAÍCIGGGCAGCCGIGGAÍGÍCCTGIGCIGCACAGCGICCÁITCIGAGCCIGIGCGC
                                                                                                                                                                                                                                                                                                                        400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACTGGGTTGTGGGCGTGGCCAGCT 454
                                                                                                                                                                                                                                                                                                                                                               483 cegadaadeccarcridececriereadrererigédierrerececercarer 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/08334698
Patent No. 556753
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Receptors and Uses Thereof
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSE: COOPER & DUNHAM
STREET: 30 ROOPER & DUNHAM
STREET: 30 ROOVER & DUNHAM
CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 83; DB 1; Length 1738; Pred. No. 1.8e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/952,798
FILING DATE: WORMATION:
NAME: White, John P. REGISTRATION NUMBER: 28,678
REGISTRATION NUMBER: 376901
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 10112
COMPUTER RADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/334,698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US/08/334,698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (212) 664-0525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1738 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (212) 664-052
TELEX: (212) 422523 CC
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1738 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COCATION: 124..16
CTHER INFORMATION
US-08-334-698-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New York
: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL: N
ANTI-SENSE: N
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-334-698-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY:
STATE:
                                                            ò
                                                                                                     d
                                                                                                                                                ð
                                                                                                                                                                                      Db
                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                      ò
                      280 AGGGIATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 339
                                                               422
                                                                                                       340 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGT 399
                                                                                                                                                423 ATCTCCATCGATCGCTACATCGGGGTGCGCTACTCTCTCCAGTATCCCACGCTGGTCACC 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 159
                                                               363 GACATCTGGGCAGCCGTGGATGTCCTGTGCACAGCGTCCATTCTGAGCCTGTGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                183 GCCATCGTGGGCAACATCCTAGTCATCTTGTCTGTGGCCTGCAACCGGCACCTGCGGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160 GATTCAACCTGCTCATAGCCAACCTCACAGGTGGTGTCTCCTCTACTGCACGCTCCTT
                                                                                                                                                                                                                                 483 cegalegaadeccarcridecccidecreacterereresererierecacedrearer 537
                                                                                                                                                                                          400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALPHAIC ADRENERGIC RECEPTOR ANTAGONISTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1567;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 1.7e-13;
0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 07065
COMPUTER READABLE FORM:
WEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/722,001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 83; DB 1;
Pred. No. 1.7e-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New Jersey
: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/229,276
FILING DATE: 14-APR-1995
ATTORNEY/AGENT INFORMATION:
NAME: APPOLIATE: 34,087
REFERENCE/DOCKET NUMBER: 19169Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19169Y
                                                                                                                                                                                                                                                                                                                                        Sequence 24, Application US/08722001
Patent No. 5760054
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Thompson, Wayne J.
APPLICANT: Huff, Joel R.
APPLICANT: Nerenberg, Jennie B.
APPLICANT: Lee, Hee-Yoon
APPLICANT: Bell, Ian M.
TITLE OF INVENTION: ALPHAIC ADR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: (908)594-3462
TELEFAX: (908)594-4720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126 Lincoln Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 138825
INFORMATION FOR SEQ ID NO: 24:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.0%;
52.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1567 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Merck &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rahway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                  RESULT 9
US-08-722-001-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: Ne COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ANTI-SENSE:
US-08-722-001-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Sim
Matches 185;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                          임
                                                                                                                                         .
G
                                                                                                                                                                                      ò
                      ਨੇ
                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
```

```
100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             358 cccaccaactactrcarrercaaccreeccareeccacerecrecrerreaccrrcaccerc 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298 geckardendedekkanternententententendekteradaktedegakentedekken 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280 AGGGTATTTGGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340 ATCGCACTGGGACGCTACCTCCTCATTGCCCAACCTTTTTCCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   538 Arcrecaredarederacaredegaegracecraciteredegagraredeaegraegraece 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418 CIGCCTICITATION OF THE CITCE CONTROL CONTROL OF THE CITCE OF CITCE OF THE CITCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               478 gacarcriegecagocogricarerororocacacacorocarroros agocieros de contratoros de contratorios de contratoros de contratorios de contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160 CGATTCAACCTGCTCAACCTCACACCTGGCTGATCTCCTTACTGCACGCTCTT
                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        598 cagadadadactrinadociócnicarantricacionnicarectricaecentraner 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCCGTGGCCAGCT
                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/08468939
| Sequence 3, Application US/08468939
| Patent No. 5714381
| GENERAL INFORMATION:
| GENERAL INFORMATION:
| TITLE OF INVENTION: DNA Encoding Human Alpha 1 Adrenergic
| TITLE OF INVENTION: Receptors and Uses Thereof
| NUMBER OF SEQUENCES:
| CORRESPONDENCE ADDRESS:
| CORRESPONDENCE ADDRESS:
| ADDRESSEE: COOPER & DUNHAM LLP
| STREET: 1185 Avenue of the Americas
| CITY: New York
| STATE: New York
| COUNTRY: OU.S.A.
                                                                                                                                                                                                     Score 83; DB 1; Length 1738;
Pred. No. 1.8e-13;
0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.24
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILLIN 435
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 41337
TELEPHONE: (212) 278-0400
TELEPHONE: (212) 278-0400
TELEPHONE: (212) 391-0526
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
                                                                                                                                                                                                                     Query Match 7.0%;
Best Local Similarity 52.1%;
Matches 185; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1738 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: New York
COUNTRY: U.S.A.
ZIP: 10036
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: single
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGA. MOLECULE TYPE: D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                       ;
US-08-228-932-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JS-08-468-939-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                      100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 159
                                                                                                                                                                                                                                                                                                            298 GCCATCGTGGGCAACATCCTAGTCATCTTGTCTGTGGCCTGCAACCGGCACCTGCGGACG 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         358 CCCACCAACTACTTCATTGTCAACCTGGCCATGGCCGACCTGCTGTTGAGCTTCACGGTC 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            280 AGGGTATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGGCCTC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538 Arcrecaredarederadaredos deservados de arcrecas de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              418 crecicerricizas acesacionas de acercias en consecues de consecues de consecuencia de conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         340 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/08228932
Patent No. 5578611
CENERAL INPORMATION:
APPLICANT: Charles Gluchowski, Carlos C. Forray, George Chiu,
APPLICANT: Theresa A. Branchek, John M. Wetzel and Paul R. Hartig
TITLE OF INVENTION: USE OF ALPHA-IC SPECIFIC COMPOUNDS TO TREAT BENIGN
TITLE OF INVENTION: PROSTATIC HYPERPLASIA
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS: 6
CORRESPONDENCE ADDRESS: 2
STREET: 30 ROCKefeller Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                          160 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT
       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            598 CGGAGGAAGGCCATCTTGGCGCTGCTCAGTGTCTGGGTCTTGTCCACCGTCATCT 652
       ô
0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: DNA (genomic)
       Matches 185; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124..1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 30 Rockef
CITY: New York
STATE: New York
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANTI-SENSE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
US-08-228-932-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
```

```
MOLECULE TYPE:
                 HYPOTHETICAL:
ANTI-SENSE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
STREET: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                       FEATURE:
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                    100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 159
                                                                                                                                                                                                                                                                                   160 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT 219
                                                                                                                                                                                                                                                                                                                                                                220 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                280 AGGCIATITIGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             340 ATCGCACTGGGACGCTACCTCCTCATTGCCCAACCTTTTTCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             538 ATCICCAICGAICGCIACAICGGGGGGGGCGCIACICIGGGGGAGGAICCCACGCIGGICACC 597
                                                                                                                                                                                                                                             298 GCCATCGTGGGCAACATCCTAGTCATCTTGTCTGTGGCCTGCAACCGGCACCTGCGGACG 357
                                                                                                                                                                                                                                                                                                                        358 cccaccaacracricarrercaaccreeccareeccaeccrecrerreaecricarcaccere 417
                                                                                                                                                                                                                                                                                                                                                                                                       418 crececrirereaeceseceraaaesisereesecraereesesesesesarerieter 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 537
                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598 CGGAGGAAGGCCATCTTGGCGCTGCTCAGTGTCTGGGTCTTGTCCACCGTCATCT 652
                                                                                                                                                                .,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/08406855A
Sequence 3, Application US/08406855A
Patent No. 5861309
GENERAL-INFORMATION:
TITLE OF INVENTION: DNA Encoding Human Alpha 1 Adrenergic
TITLE OF INVENTION: Receptors and Uses Thereof
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
                                                                                                                       Length 1738;
                                                                                                                       Score 83; DB 1; Length 173
Pred. No. 1.8e-13;
0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41337-A-PCT-US/JPW/KDB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3: Cooper & Dunham LLP
1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             UMBER: US/08/406,855A
21-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PATENTIN RELEASE #1.30
SOFTWARE: PATENTIN BATA:
APPLICATION NUMBER: US/08/406,855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 21-AUG-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGLSTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 4133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 278-0400
TELEPAK: (212) 391-0526
INPORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1738 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                       7.0%;
                                                                                                                       Query Match
Best Local Similarity 52.1
Matches 185; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                        ), LOCATION: 124..1683
), OTHER INFORMATION:
US-08-468-939-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New York
: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
US-08-406-855A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              358 CCCACCAACTACTTCATTGTCAACCTGGCCATGGCCGACCTGCTGTTGAGCTTCACCGTC 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           280 AGGGTATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   340 ATCGCACTGGGACGCTACCTCCTCATTGCCCTAAGCTTTTCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       538 Arcticaricarioscraciasarioses de caracteristrados de construcciones es en estados es estados es estados es estados estados
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Charles Gluchowski, Carlos C. Forray, George
APPLICANT: Chiu, Theresa A. Branchek, John M. Wetzel and Paul R. Hartig
TITLE OF INVENTION: USE OF ALPHA-IC SPECIFIC COMPOUNDS TO
TITLE OF INVENTION: TREAT BENIGN PROSTATIC HYPERPLASIA
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               418 crecccrrcaececccracaegicircecracaegracites crecceses and control of the crecces of the creckes of the creck
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  160 CGATTCAACCTGCTCATAGCCAACCTCACTGGCTGATCTCCTCTACTGCACGCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       478 gacarcrasscrasscrassiscrarscrasscrasscraticarrandasscristscrasscr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        598 cegalegaalgecearctriegicecriericaereriegeiterrierecaecerearen 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches 170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 41878-D-PCT/JPW/AGL
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 278-0400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 83; DB 2;
Pred. No. 1.8e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COOPER & DUNHAM LLP
1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-722-190-3
Sequence 3. Application US/08722190
Patent No. 5990128
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28,678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: New York
COUNTRY: U.S.A.
ZIP: 1003E
COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY disk
COMPUTER: IBM PC
DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (212) 391-0525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 52.1
Matches 185; Conservative
                                                                                                                                                                                                                                                                                       NAME/KEY: CDS
LOCATION: 124..1683
CTHER INFORMATION:
US-08-406-855A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: New York
```

```
completed: September 24, 2004, 04:51:48
e : 95.7758 secs
TELBFAX: (212) 278-0400 TELBFAX: (212) 391-0525 TELEX:
                                                                                                                                                                                                                                                                                          ) NAME/KEY: CDS

; LOCATION: 124..1683

; CTHER INFORMATION:

US-08-244-354-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                      100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 159
                                                                                                                                                                                                                                                                                                                                                                                                                                            160 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                358 CCCACCAACTACTTCATTGTCAACCTGGCCATGGCCGACCTGCTGTTGAGCTTCACCGTC 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 418 crecicrircheaceaceeraaaanacheereacerachaaceaceaaceacaareherer 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              280 AGGGTATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGGCCTC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               340 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538 Archiccardgarddchadardggggggggggggggggggagaardccagardcccaggrgardacc 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           598 cegadeaadeccalcridécécriscreamentificatrificaccardatir 652
                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                     Length 1738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:

APPLICANT: Charles Gluchowski, et al.

APPLICANT: Charles Gluchowski, et al.

TITLE OF INVENTION: USE OF ALPHA-1C SPECIFIC COMPOUNDS TO TITLE OF INVENTION: TREAT BENIGN PROSTATIC HYPERPLASIA NUMBER OF SEQUENCES: 6

CORRESPONDENCE ADDRESS:

ADDRESSEE: COOPER & DUNHAM LLP STREET: 1185 Avenue of the Americas CITY: New York STATE: New York COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                7.0%; Score 83; DB 2; Length 173 llarity 52.1%; Pred. No. 1.8e-13; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 41878-D-PCT-US/JPW FELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/08/244,354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.24 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/244,35-FILING DATE: April 1, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-244-354-3
; Sequence 3, Application US/08244354
; Patent No. 6015819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28,678
                                                                                                                         DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC
OPERATING SYSTEM: PC-DOS/
                                    LENGTH: 1738 base pairs
TYPE: mucleic acid
STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: DNA (genomi
                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: 124..1683
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                    al Similarity
185; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: AP
                                                                                                                                                Z
                                                                                                                                           HYPOTHETICAL:
ANTI-SENSE: N
FEATURE:
NAME/KEY: CL
                                                                                                                                                                                                                                                                        US-08-722-190-3
                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                    Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

```
219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        358 cecaccaácracricarrenciacerescearesceáceacriserensaserreacere 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         418 creccerrereaccecerranancerecerrecerrececerecececes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     280 AGGGTATITIGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538 ATCTCCATCGATCGCTACATCGGGGTGCGCTACTCTGCAGTATCCCACGCTGGTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           298 eccarceredecaacarceracrearcreseresedecerecaaceecacereceses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220 CAGCCCTTCTCTGTGGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1738;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 83; DB 3; Length 173 Pred. No. 1.8e-13; 0; Mismatches 170; Indels
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1738 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLGY: unknown
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: N
ANTI-SENBE: N
FEATURE:
                                                                                                                                                                               DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 52.1%;
Matches 185; Conservative
```

ö

Appli Appli Appli Appli Appli Appli Appli Appl

Title: Perfect score:

Sequence:

OM protein

Run on:

Scoring table:

Minimum DB Maximum DB

```
US-US-V/D-428-2

j Sequence 2. Application US/08775428

patent No. 5976834

GENERAL INFORMATION:
APPLICANT: Sathe, Ganesh
APPLICANT: Sathe, Ganesh
APPLICANT: Batte, Ganesh
APPLICANT: Eliis, Catherine
TITLE OF INVENTION: CDNA CLONE HNFJDLS THAT ENCODES
TITLE OF INVENTION: A NOVEL HUMAN 7-TRANSMEMBRANE RECEPTOR
NUMBER OF SEGURNCES: 2
CORRESPONDENCE ADDRESS: 2
CORRESPONDENCE ADDRESS: 2
CORRESPONDENCE ADDRESS: 3
ADDRESSEE: SMithKline Beecham Corporation
STREET: 709 Swedeland Road
CITY: King of Prussia
STATE: P3406
COMPUTER: RADABLE FORM:
MEDTUM TYPE: Diskette
COMPUTER: RADABLE FORM:
MEDTUM TYPE: Diskette
COMPUTER: BEASED for Windows Version 2.0
CURRENT APPLICATION DOS
SOFTWARE: FastSED for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/775,428
FILING DATE:
PRICATION NUMBER: 34,344
RESISERENCE/DOCKET NUMBER: ATGRESOMUSICATION INFORMATION:
NAME: Han, William T
RELEPHONE: 610-270-6219
TELLECOMMUNICATION INFORMATION:
TELLECOMMUNICATION INFORMATION:
TELLECOMMUNICATION INFORMATION:
TELLECOMMUNICATION INFORMATION:
TELLECOMMUNICATION INFORMATION:
TELLECOMMUNICATION INFORMATION:
TELLEPHONE: 610-270-6219
                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                   Sequence
Sequence
Sequence
                                                                                                                                                                            Sequence
                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                  Sequence
                                               Sequence
                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2041; DB 2;
No. 7.3e-176;
US-07-781-254A-1

US-08-406-855A-23

US-09-206-89-23

US-09-06-415-11

US-09-03-742-5

US-08-118-270-17

PCT-US93-08528-17

US-08-467-5598-10

US-08-467-5598-6

US-08-34-698-6

US-08-34-698-6

US-08-34-698-6

US-08-328-939-6

US-08-468-939-6

US-08-728-939-6

US-08-728-939-6
                                                                                                                                                                                                                                                                                                                                                           -08-406-855A-6
-08-722-190-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: LENGTH: 396 amino acids TYPE: amino acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear

MOLECULE TYPE: protein
US-08-775-428-2
       Query Match
Best Local Similarity
  283.5
281.5
281.5
281.5
278.5
278
                                                                                                                                                         278
274.5
274
    11; Search time 29 Seconds (without alignments) 704.962 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                US-10-029-436-2
2041
1 WWNSSDANFSCYHESVLGYR.....FRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence Sequence S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Issued Patents AA:*

(GGT_2 ($\propto\) (GGT_2 ($\p
                            GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-194-338-3
US-09-688-415-10
US-08-46-855-22
US-09-206-899-22
US-09-689-415-9
US-09-689-415-9
US-08-467-568-10
US-08-467-568-10
US-08-09-030-582-10
US-08-333-977-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-334-698-4
US-08-228-932-4
US-08-468-939-4
US-08-406-855A-4
US-08-244-354-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -08-406-855A-2:
-09-206-899-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-206-899-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-444-783-4
                                                                                                                                                                                                                                                                                                                                                                                                          389414 seqs, 51625971 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                              September 24, 2004, 08:34:21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                 - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0., Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match Length
                                               Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . . . .
```

Score

Result No.

us-10-029-436-2.rai

```
362 NGCINPVLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | :||::| | :||:|| | 41||:|| | 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/626,618
FILING DATE: 7 DEC 1990
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 60606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CMEDUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: No. 5594108nan, Kevin E
REGISTRATION NUMBER: 35,303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FELECOMMUNICATION INFORMATION:
Query Match
Best Local Similarity 25.9%;
Matches 115; Conservative 6
                                                                                                                                                                                                                                                                                                                                                                                                    261 AATTQTLEGDSSEVG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             810-221-8317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Abbar
STREET: 10
TTY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Chi
STATE: II
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -08-333-977-18
                                                                                            g
                                                                                                                                 à
                                                                                                                                                            d
                                                                                                                                                                                               ò
                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                           DD
                                                                                                                                                                                                                                                                                                                                                                                         챵
                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                   120
                                                                                                                                                                   180
                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                     61 NITLADILIYCTILLQPFSVDTYLHLHWRTGATFCRVFGLILFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                   181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE 240
                                                                                                                                                                                                                                                                                                   LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                      IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                               301 IKGARRAPDSSSBFGKVTRMCPAVFLCPALSYIPFLILINILDARVQAPRVVHMLAANLTW 360
                                                               9
                                                                                                                                                                                      61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                    241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                 1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                               1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALAIQPKLRTRFNLLIA
                                                                                                                                                                   121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 542265
GENERAL INFORMATION:
APPLICANT: Van Tol, Hubert H.M.
APPLICANT: Çivelli, Olivier
TITLE OF INVENTION: A No. 5422265el Human Dopamine Receptor and Uses
NUMBER OF SEQUENCES: 22
 Gaps
 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/626,618A
FILING DATE: 7 DEC 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                      361 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3: Allegretti & Witcoff, Ltd.
10 South Wacker Drive, Suite 3000
 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 18, Application US/07626618A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: No. 542265nan, Kevin E
REGISTRATION NUMBER: 35,303
 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 90
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1234
TELEFAX: 312-715-1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 312-715-1234
TELEX: 810-221-8317
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               443 amino acids
amino acid
 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS: ADDRESSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDALL
STREET: 10 -
CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 7
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE:
HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
US-07-626-618A-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-07-626-618A-18
396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGIH:
                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                      301
 Matches
                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                            g
                                                                                                   ò
                                                                                                                               Pb
                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                   ò
                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                      ઠે
```

```
16;
                                                                                                                                                                                                                                                                                                                       76 LAVADLLVATLVMPWVV--YLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRY 133
                                                                                                                                                                                                                                                                                                                                                                                    120 ILIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYT 179
                                                                                                                                                                                                                                                                                                                                                                                                                                180 TILMGIYFVLGLSSVGIF-----YCLIHRQ----VKRAAQAL----- 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      213 -----DQYKLRQASIHSN-----HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVS 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           242 GNCTHPEDMKLCTVIMKŚNGSFPVNRRRVDAAR--RAQELEMEMLSSTSPPERTRYSPIP 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -DQINSKRAKQMAEKSPPEASAKAQPIKGA 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300 PSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQIMPNGKTRTS-LKIM 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     305 RRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL--- 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              359 SRRKLSQQKEKKATQMLAIVLGVFIICWLPFFFITHILNIHCDC-NIPPVLXSAFTWLGYV 417
                                                                                                                                2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIAN 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/08333977

Patent No. 5594108

GENERAL INFORMATION:
APPLICANT: Van Tol, Hubert H.M.
APPLICANT: Civelli, Ollvier
TITLE OF INVENTION: A No. 5594108el Human Dopamine Receptor and Uses
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Allegretti & Witcoff, Ltd.
                                                                                                                                                                                      FNGSDGKADRPH----YHYYATLLTLIAVI-VFGNVLVCMAVSREKALQTTTNYLIVS
                                                                                                                                                                                                                                                             62 LTLADLLYCTLLQPFSVDTYLHL - - HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                   Gaps
                                                                   84;
; Score 293; DB 1; Length 44; Pred. No. 2.8e-18; 66; Mismatches 179; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/333,977
FILING DATE: 03-NOV-1994
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3: Allegretti & Witcoff, Ltd.
10 South Wacker Drive, Suite 3000
```

```
Query Match 14.3%; Score 291.5; DB 1; Best Local Similarity 25.4%; Pred. No. 4.6e-18; Matches 104; Conservative 73; Mismatches 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----NSKELTLRIHSKNFHE----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 10, Application US/09688415; Patent No. 6448011
APPLICATION NUMBER: US 07/676,
FILING DATE: 28-MAK-1991
ATTORNEY/AGENT INFORMATION:
NAME: Israelsen, Med A.
REGISTRATION NUMBER: 29,655
REGISTRATION NUMBER: 0.91655
REFERENCE/DOCKET NUMBER: NIH10
TELEPRONE: (119) 235-0176
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 515 amino acids
TYPE: amino acid
TYPE: amino acid
TYPE: amino acid
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                   FRAGMENT TYPE: . internal
                                                                                                                                                                                                                                                                             MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Pac
SEQ ID NO 10
                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                   ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-688-415-10
                                                                                                                                                                                                                                                                                                                                                  US-08-194-338-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        359 SRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYV 417
                                                                                                                                                                                                                                                                                                                                       120 LLIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYT 179
                                                                                                                                                                                                                                                                                                                                                                                                                  : | | | : : | | :: | | :: | | 134 TAVAMPMLYNTRYSSKRRVTVMIS--IVWVLSFT------ISCPLLFGLNNADQNE 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       213 -----DQYKLRQASIHSN----HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVS 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      242 GNCTHPEDMKLCTVIMKSNGSFPVNRRRVDAAR--RAOBLEMEMLSSTSPPERTRYSPIP 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300 PSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTS-LKTM 358
                                                                                                                                                                                                                                                                                                                   LTLADLLYCTLLQPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            261 AATTQTLEGDSSEVG-------DOINSKRAKOMAEKSPPEASAKAQPIKGA 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL--- 361
                                                                                                                                                                                                                                                                             22 FNGSDGKADRPH----YHYYATLLTLLIAVI-VFGNVLVCMAVSREKALQTTTNYLIVS 75
                                                                                                                                                                                                                                            2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQIQPKLRTRFNLLLAN 61
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180 TILMGIYFVLGLSSVGIF-----YCLIHRQ----VKRAAQAL----
                                                                                                                                                                                                         84;
                                                                                                                                                                   14.4%; Score 293; DB 1; Length 443; 25.9%; Pred. No. 2.8e-18; ive 66; Mismatches 179; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUDRESSEE: Knobbe, Martens, olson and Bear STREET: 620 Newport Center Drive, Sixteenth Floor CITY: Newport Beach STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIN Release #1.0, Version #1.25 CURRENT APPLICATION DATA: PSPLICATION NUMBER: US/08/194,338 FILING DATE: 08-FEB-1994 CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            362 NGCINPVLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | :||::| :|| | NSAVNPIIXTTFNIEFRKAFLKIL 441
       INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 443 amino acid TYPE: amino acid
                                                                                                                                                                                        Best Local Similarity 25.9
Matches 115; Conservátive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 92660
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of
                                                                           TOPOLOGY: linear
NOLECULE TYPE: protein
HYPOTHETICAL: NO
US-08-333-977-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-08-194-338-3
                                                                                                                                                                                                                                                                                                                   62
                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

RIRFNLLIANLILADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTL 111 112 CLIALGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPL--WPIYILVPVVCTC 168 | ::| :|| |-----DTLSSTKAK--- 271 288 EKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLL---LNILDAR 344 GENERAL INFORMATION:
APPLICANT: Bard, Jonathan A
APPLICANT: Bard, Jonathan A
APPLICANT: Bard, Jonathan A
APPLICANT: Fortay, Carlos
APPLICANT: Weinshank, Richard L
TITLE OF INVENTION: DNA ENCODING HUMAN ALPHA 1 ADRENERGIC RECEPTORS AND
FILLE OF INVENTION: USES THEREOF
FILLE OF INVENTION: USES THEREOF
FILLE REFERENCE: 41337aza
CURRENT APPLICATION NUMBER: US/09/688,415
PRIOR APPLICATION NUMBER: 09474,551
PRIOR FILLING DATE: 1999-12-29 77 RIPINYFIVNLAIADLLISFIVLPFSATIEVLGYWVLGRIFCDIWAAVDVLCCTASILSL 169 SPDRIRGRPYTTILMGI-YFVLGLSSVGIFYCLIHROVKRAAOALDQYKLRQASIHSNHV 228 ARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMA 272 -GHNPRSSIAVKLFKFSRE-KKAAKTLGIVVGM-----FILCWLPFFIALPLGSLFST 71; Gaps 2 WNS-SDANFSCYHE----SVLGYRYV--AVSWGVVVA---VTGTVGNVLTLLALAIQPKL 345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHR 394 Length Indels

227

14;

us-10-029-436-2.rai

```
52 RIRFNLLIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTL 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112 CLIALGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAFL--WPIYILVPVVCTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                228 ARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMA 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----- DTLSSTKAK--- 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                288 EKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLL---LNILDAR 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272 -GHNPRSSIAVKLFKFSRE-KKAAKTLGIVVGM-----FILCWLPFFIALPLGSLFST 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 WNS-SDANFSCYHE----SVLGYRYV--AVSWGVVVA---VTGTVGNVLTLLLALAIQPKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   169 SFDRIRGRPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  323 LKPPDAVFKVVFWLGYFNSCLNPIIYPCSSKEFKRAFMRILGCOCRSGRR 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNRQPRQAYGSILKRGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 14.1%; Score 288.5; DB 1; Best Local Similarity 25.1%; Pred. No. 8.6e-18; Matches 103; Conservative 74; Mismatches 162;
ATTORNEY/AGENT INFORMATION:

NAME: Altman, Daniel E.

REGISTRATION NUMBER: 34.115

REFERENCE/DOCKET NUMBER: NIH065.001FW1

TELECOMMUNICATION INFORMATION:

TELEPHONE: (714) 760-9602

TELEPHONE: (714) 760-9602

INFORMATION FOR SEQ ID NO: 7:

SEQUENCE CHARACTERISTICS:

LENGTH: 515 amino acids

TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    247 -----NSKELTLRIHSKNFHE------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1: Cooper & Dunham LLP
1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patentin Release #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                      internal
                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New York
U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New York
                                                                                                                                                                                                                                                                                                                                                                                                    FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                               ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-444-734A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: Ne
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \overset{\circ}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 7, Application US/08444734A
Patent No. 5610282
GENERAL INFORMATION:
APPLICANT: Sibley, David R.
APPLICANT: Monsma, Frederick J.
APPLICANT: Mahan, Lawrence C.
APPLICANT: Movitie, Loris D.
TITLE OF INVENTION: expression of the receptor protein in plasmid-transfected
TITLE OF INVENTION: expression of the receptor protein in plasmid-transfected
TITLE OF INVENTION: expression of the receptor protein in plasmid-transfected
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
                                                                                                                                                        14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                    52 RTRFNLLIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTL 111
                                                                                                                                                                                                                                                                                                                                     112 CLIALGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPL--WPIYILVPVVCTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                169 SFDRIRGRPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHV 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                228 ARIDEAMPGREQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMA 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272 -GNHPRSSIAVKLFKFSRE-KKAAKTLGIVVGM-----FILCWLPFFIALPLGSLFST 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                288 EKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLL---LNILDAR 344
                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                        76
                                                                                                                                                                                                                                   ----DILSSIKAK---
                                                                                                                                                                                                       2 WNS-SDANFSCYHE----SVLGYRYV--AVSWGVVVA---VTGTVGNVLTLLLALAIOPKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193 KECGVTEEPFYALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMS-----
                                                                                                                                                        71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHR
                                                                                                       14.2%; Score 290.5; DB 4; Length 325.1%; Pred. No. 5.7e-18; ive 75; Mismatches 161; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEE: Knobbe, Martens, Olson and Bear
: 620 Newport Center Drive, Sixteenth Floor
Newport Beach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/444,734A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 530
PRIOR APPLICATION DATE:
PELLING DATE: 03-MAR-1993
PRIOR APPLICATION DATE: 03-MAR-1993
PRIOR APPLICATION DATE: 04-MAR-1990
FILING DATE: 06-UUJ-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247 -----NSKELTLRIHSKNFHE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                    Query Match
Best Local Similarity 25.1:
Matches 103; Conservative
       TYPE: PRT ORGANISM: Hamster sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                    ; ORGANISM: Han
US-09-688-415-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
US-08-444-734A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ` &
```

246

227

136

96

71;

```
112 CLIALGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPL--WPIYILVPVVCTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      52 RIRFNILIANLTLADLLYCTLLQPPSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTL 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         169 SFDRIRGRPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHV 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   288 EKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLL---LNILDAR 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  272 -GHNPRSSIAVKLFKFSRE-KKAAKTLGIVVGM-----FILCWLPFFIALPLGSLFST 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 9, Application US/09688415

Sequence 9, Application US/09688415

Patent No. 6448011

GENERAL INFORMATION:

APPLICANT: Bard, Jonathan A

APPLICANT: Forray, Carlos

TITLE OF INVENTION: UNES THEREOF

TITLE OF INVENTION: UNES THEREOF

TITLE OF INVENTION: UNBER: US/09/688,415

CURRENT APPLICATION NUMBER: US/09/688,415

CURRENT FILING DATE: 2000-10-16

PRIOR APPLICATION NUMBER: 09/474,551

PRIOR FILING DATE: 1999-12-29

NUMBER OF SEQ ID NOS: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      193 KECGVTEEPFYALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 WGELKDANFTGPNQTSSNSTLPQLDVTRAISVGLVLGAFILFAIVGNILVILSVACNRHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      228 ARTDEAMPGREQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 WNS-SDANFSCYHE----SVLCYRYV--AVSWGVVVA---VTGTVGNVLTLLALALQPKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                              FILING DATE:
CLASSIPICATION:
PRIOR APPLICATION:
APPLICATION NUMBER: US 08/406,855
FILING DATE: 21-AUG-1995.
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
REPERBNCE/DOCKET NUMBER: 41337-A-PCT-US/JPW/KDB
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 278-0400
TELEPAX: (212) 378-0400
TELEFAX: (212) 391-0526
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
T-NNGTH: 515 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14.1%; Score 288.5; DB 3;
ilarity 25.1%; Pred. No. 8.6e-18;
Conservative 74; Mismatches 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247 -----NSKELTLRIHSKNFHE------
                               CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/206,899
                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 103; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-206-899-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-688-415-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RTRENLLIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTL 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLIALGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVG-VAŞFAPL--WPIYILVPVVCTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            169 SFDRIRGRPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHV 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        193 KECGVTEEPFYALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMS----- 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            228 ARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMA 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           288 EKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLL---LNILDAR 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          272 -GHNPRSSIAVKLFKFSRE-KKAAKTLGIVVGM-----FILCWLPFFIALPLGSLFST 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 WGELKDANFTGPNQTSSNSTLPQLDVTRAISVGLVLGAFILFAIVGNILVILSVACNRHL 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 WNS-SDANFSCYHE---SVLGYRYV--AVSWGVVVA---VTGTVGNVLTLLALAIQPKL 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNROFRQAYGSILKRGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Jonathan A. Bard et al.
APPLICANT: Jonathan A. Bard et al.
TITLE OF INVENTION: DNA Encoding Human Alpha 1 Adrenergic
TITLE OF INVENTION: Receptors and Uses Thereof
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
ADDRESSEE: COOPER & Dunham LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14.1%; Score 288.5; DB 2; Length ! 25.1%; Pred. No. 8.6e-18; ive 74; Mismatches 162; Indels
                                                                                                                                                                               41337-A-PCT-US/JPW/KDB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3: Cooper & Dunham LLP
1185 Avenue of the Americas
                       UMBER: US/08/406,855A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 22, Application US/09206899
Patent No. 6083705
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/406,
FILING DATE: 21-AUG-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 41337
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 291-0526
INFORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTERISTICS:
LENGHAL S15 amino acids
TYPE: amino acids
TYPE: amino acid
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 25.1
Matches 103; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                        ; MOLECULE TYPE: protein US-08-406-855A-22
                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: New York
STATE: New York
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
US-09-206-899-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
```

임 ò 엄

엄 ò 임

ð

g ò g ò

ઠે

246

```
9
2
                                                                                                                                                                                                                                                                    ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  262
                                                                                                                                                                                                                                                                                         80 TYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL 139
                                                                                                                                                                                                                                                                                                               165 ALLSVWVLSTVISIGPLLGWK----EPAPNDDKECGVTEEPFCALFCSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                           196 IFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256 SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263 ------DILSSTKAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316 KVTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     298 IVVGM------FILCWLPFFIALFLGSLFSTLKFPDAVFKVVFWLGYFNSCLNPIIYPC 350
                                                                                                                                                                                                                                    45 AISVGLVLGAFILFAIVGNILVILSVACNRHLRTPTNYFIVNLAIADLLLSFTVLPFSAT 104
                                                                                                                                                                                                                                                                                                                                                                  140 ALVSTWVVG-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                             23 AVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----NSKELTLRIHSKNFHE---
                                                                                                                                                                         67; Gaps
                                                                                                                                  Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Thompson, Wayne J.
APPLICANT: Thompson, Wayne J.
APPLICANT: Huff, Joel R.
APPLICANT: Lee, Hee You
APPLICANT: Lee, Hee You
APPLICANT: Bell, Ian M.
TITLE OF INVENTION: ALPHAIC ADRENERGIC RECEPTOR ANTAGONISTS
CORRESPONDENCE ADDRESS:
                                                                                                                                  ch 14.1%; Score 287.5; DB 4; Length 5
1 Similarity 24.9%; Pred. No. 1.1e-17;
96; Conservative 71; Mismatches 151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: TEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/722,001
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : || :: || : |: || 221 UMYCRVYIVAKRTTKNLEAGVMKEMS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    351 SSKEFKRAFMRILGCQCRGGRRRR 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             373 MNRQFRQAYGSILK -- RGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New Jersey
: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/229,276
FILING DATE: 14-APR-1995
ATTORNEY/AGENT INFORMATION:
NAME: Appollina, Mary A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 25, Application US/08722001
Patent No. 5760054
GENERAL INFORMATION:
APPLICANT: Thompson, Wayne J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : Merck & Co., Inc.
126 Lincoln Avenue
  PatentIn Ver. 2.1
                                                           ; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-09-688-415-9
                                                                                                                                    Query Match
Best Local Similarity
Matches 96; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Rahway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
SOFTWARE: Pat
SEQ ID NO 9
LENGTH: 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
US-08-722-001-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET:
                                                                                                                                                                                                                                                                                                                                                                                                     ρģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

```
298 IVVGM------FILCWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNPIIYPC 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            45 AISVGLVLGAFILFRAIVGNILVILSVACNRHLRTPTNYFİVNLAMADLLLSFTVLPFSAA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80 TYLHLHWRTGATFCRVFGLLLFASNSVSIJTLCLIALGRYLLIAHPKLFPQVFSAKGIVL 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140 ALVSTWVVG-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         165 ALLSVWVLSTVISIGPLLGWK----EPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196 IFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256 SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316 KVTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWINGCINPVLYAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23 AVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --NSKELTLRIHSKNFHE---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          263 -------DTLSSTKAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Match 14.0%; Score 286.5; DB 1; Length Local Similarity 24.9%; Pred. No. 1.3e-17; Local Set 26; Conservative 71; Mismatches 151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: SOPPET, DANIEL R
TITLE OF INVENTION: ADRENERGIC RECEPTOR
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: Carella, Byrne, Bain, Gilfillan, Cecchi,
ADDRESSEE: Stewart & Olstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 351 SSKEFKRAFMRILGCQCRGGRRRR 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               373 MNRQFRQAYGSILK---RGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221 VMYCRVYIVAKRTTKNLEAGVMKEMS---
REGISTRATION NUMBER: 34,087
REFERENCE/DOCKET NUMBER: 19169Y
TELECOMMUNICATION INFORMATION:
TELEFAX: (908)594-3462
TELEFAX: (908)594-4720
TELEX: 138825
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 515 amino acids
TYPER: am
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-467-568-10
; Sequence 10, Application US/08467568
Patent No. 5817477
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6 Becker Farm Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; FRAGMENT TYPE: N-terminal US-08-722-001-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 6 percent of TTY: Roseland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: NJ
COUNTRY: USA
ZIP: 07068-1739
```

```
351 SSKEFKRAFVRILGCQCRGRRRRR 375
                                                                                                                                                                                36,134
ER: 325800-324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   373 MNRQFRQAYGSILK---RGPRSFHR 394
DATA:
R: US/09/030,582
                                    PILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/467,568
FILING DATE:
ATVORBY AGENT INFORMATION:
NAME: Ferrarc, Gregory D
REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-3
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPRAX: 201-994-1700
INFORMATION FOR SEQ ID NO: 10:
LENGTH: 517 amino acids
                                                                                                                                                                                                                                                                                                                             LENGTH: 517 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 60606
COMPUTER READABLE FORM:
  CURRENT APPLICATION DA
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 96; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-07-626-618A-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
ZIP: 606
                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-030-582-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  105 LEVLGYWVLGRIPCDIWAAVDVLCCTASILSLCAISIDRYIGVRYSLQYPTLVTRRKAIL 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALVSTWVVG-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               165 ALLSVWVLSTVISIGPLLGWK----EPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196 IFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256 SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298 IVVGM-----PILCWLPFFIALPLGSLFSTIKPPDAVFKVVFWLGYFNSCLNDIIYPC 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45 AISVGLVIGAFILFAIVGNILVILSVACNRHLRTPTNYFIVNLAMADLILSFTVLPFSAA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80 TYLHLHWRIGAIFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----DILSSIKAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KVTRMCFAVFLCFALSYIPFLL --- LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23 AVSWGVVVA---VIGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD 79
                                                                                                                                                                                                                                                                                                                                                                                                                                    67;
                                                                                                                                                                                                                                                                                                                                                                                                Length 517;
                                                                                                                                                                                                                                                                                                                                                                                           14.0%; Score 286.5; DB 2; Length 24.9%; Pred. No. 1.3e-17; ive 71; Mismatches 151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Carella, Byrne, Bain, Gilfillan, Cecchi, ADDRESSEE: Stewart & Olstein
STREET: 6 Becker Farm Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 10, Application US/09030582
Patent No. 5994506
GENERAL INFORMATION:
APPLICANT: SOPPET, DANIEL R
TITLE OF INVENTION: ADRENERGIC RECEPTOR
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        373 MNRQFRQAYGSILK --- RGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               351 SSKEFKRAFVRILGCOCRGRRRRR 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: NJ
CONTRY: USA
ZIP: 07068-1739
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compartible
OPERATING SYSTEM: PC-DOS/WS-DOS
SOFTWARE: PACENTIN Release #1.0, v
      APPLICATION NUMBER: US/08/467,568
FILING DATE: 06-JUN-1995
                                                                             NAME: FETALO, GREGORY D
REGISTRATION NUMBER: 35,134
REFERENCE/DOCKET NUMBER: 3258(
TELECOMMUNICATION INFORMATION:
TELEPAK: 201-994-1704
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                 LENGTH: 517 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-467-568-10
                                                                                                                                                                                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 96; Conserv
                         FILING DATE: 06 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
US-09-030-582-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
140 ALVSTWVVG-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                                                                                                                                                                                                                  165 ALLSVWVLSTVISIGPLIGWK----EPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                            196 IFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            256 SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSBFG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298 IVVGM------FILCWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNDIIYPC 350
                                                                                                                                                  221 VMYCRVYIVAKRITKNLBAGVMKEMS-------NSKELILRIHSKNFHE--- 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------DILSSTKAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             316 KVTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA 372
                                                                                                             23 AVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD
                                                                                                                                                                                                                              80 TYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 19, Application US/07626618A

Sequence 19, Application US/07626618A

GENERAL INFORMATION:
APPLICANT: Van Tol, Hubert H.M.
APPLICANT: Civelli, Olivier
TITLE OF INVENTION: A No. 5422265el Human Dopamine Receptor and UNIMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
   Length 517;
                                                         Indels
   DB 2;
                                                         71; Mismatches 151;
                                 1.3e - 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Allegretti & Witcoff, Ltd.
STREET: 10 South Wacker Drive, Suite 3000
CITY: Chicago
STATE: Illinois
14.0%; Score 286.5; 24.9%; Pred. No. 1.3e
```

```
62 LILLADLLYCTLLQPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120 LLIAHPKLFPQVFSAKGIVLALVS-TWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPY 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              214 QYKLRQASIHSW-----HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVSAATTQTL 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22 FNGSEGKADRPH-----YNYYAMLLTLIFII-VFGNVLVCMAVSREKALQTTTNYLIVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 LAVADLLVATLVMPWVV--YLEVVGEWRESRIHCDIEVTLDVMMCTASILNLCAISIDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       249 DMKLCTVIMKSNGSFPVNRRRMDAAR--RAQELEMEMLSSTSPPERTRYSPIPPSHHOLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----DQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307 LPDPSHHGLHSNPDSPAKPEKNGHAKIVNPRIAKFFEIOTMPNGKTRTS-LKTMSRRKLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311 SSEFGKVTRMCFAVFLCFALSYIPFLLINILDARVQAPRVVHMLAANLTWL---NGCINP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 444;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179 TIILMGI-----YFVLGLSSVGIFYCLIHRQ-----VKRAAQAL---
                                                                                                                                                                                                             SOFTWARE:
SOFTWARE:
CURRENT APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
FLING DATE:
O3-NOV-1994
CLASSIFICATION:
FRIOR APPLICATION:
APPLICATION DATA:
APPLICATION NUMBER:
APPLICATION NUMBER:
TILING DATE:
APPLICATION NUMBER:
APPLICATION NUMBER:
NO 5594108nan, Kevin E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 14.0%; Score 285.5; DB 1; Best Local Similarity 25.6%; Pred. No. 1.3e-17; Matches 112; Conservative 70; Mismatches 185;
  10 South Wacker Drive, Suite 3000
                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: NO. 5594108nan, Kevin E
REGISTRATION NUMBER: 35,303
REPRENCE DOCKET NUMBER: 90,1092
TELECOMMUNICATION INFORMATION:
                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    368 VLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                425 IIYTTFNIBFRKAFMKIL 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEX: 810-221-8317
INFORMATION FOR SEQ ID NO: 19:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   444 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              312-715-1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          268 EGDSSEVG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: protein
HYPOTHETICAL: NO
US-08-333-977-19
                                                                                               ZIP: 60606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                         Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX:
                                                                          COUNTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
US-08-334-698-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               合
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 ITLADILIYCTILLQPFSVDTYLHL--HWRTGATFCRVFGLILFASNSVSILTLCLIALGRY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120 LLIAHPKLFPQVFSAKGIVLALVS-TWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPY 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        134 TAVAMPMLYNTRYSSKRRVTVMIAIVWVLSFTISCPL----LFGINNTDQNECIIANPA 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  189 FVVSSIVSFYVPFIVTLLVYIKİYIVLRKRKRVNTKRSSRAFRANLKTPLKGNCTHPE 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        214 QYKLRQASIHSN-----HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVSAATTQTL 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---- DQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDS 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      307 LPDPSHHGLHSNPDSPAKPEKNGHAKIVNPRIAKFFEIQTMPNGKTRTS-LKTMSRRKLS 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    249 DMKLCTVIMKSNGSFPVNRRRMDAAR--RAQELEMEMLSSTSPPERTRYSPIPPSHHQLT 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311 SSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL---NGCINP 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22 FNGSEGKADRPH----YNYYAMLLTLIFII-VPGNVLVCMAVSREKALQTTTNYLIVS 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 19, Application US/08333977
Patent No. 5594108
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Civelli, Olivier
TITLE OF INVENTION: A No. 5594108el Human Dopamine Receptor and Uses
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: Allegretti & Witcoff, Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALALQPKLRTRFNLLIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         179 TTILMGI-----YFVLGLSSVGIFYCLIHRQ----VKRAAQAL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 444;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/626,618A
FILING DATE: 7 DEC 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
14.0%; Score 285.5; DB 1;
Best Local Similarity 25.6%; Pred. No. 1.3e-17;
Matches 112; Conservative 70; Mismatches 185;
                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: No. 542265nan, Kevin E
RECISTRATION NUMBER: 35,303
REFERENCET NUMBER: 90,1092
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-715-1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ::| :||:|: ||
425 IIYTTFNIEFRKAFMKIL 442
                                                                                                                                                                                                                                                                                                                                                                TELEX: 810-221-8317
INFORMATION FOR SEQ ID NO: 19:
SEQUENCE CHARACTERISTICS:
LENGTH: 444 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                          : 444 amino acids
amino acid
3Y: linear
                                                                                                                                                                                                                                                                                                                                              312-715-1234
                                                                                                                                             FILING DATE: 7
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        268 EGDSSEVG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-07-626-618A-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
US-08-333-977-19
                                                                                                                                                                                                                                                                                                                                           TELEFAX:
```

g

8 임 Š g

g

ò g ò ద ò g δ

16;

71;

```
140 ALVSTWING-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     165 ALLSVWVLSTVISIGPLIGWK----EPAPNDDXECGVTEEPFYALFSSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221 VMYCRVYIVAKRITKNLEAGVMKEMS----262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256 SEPVSAATTOTLEGDSSEVGDQINSKRAKOMAEKSPPEASAKAOPIKGARRAPDSSSEFG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          263 ------DTLSSTRAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316 KUTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298 IVVGM-----FILCWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNPIIYPC 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80 TYLHLHWRIGAIFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196 IFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23 AVSWGVVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLOPFSVD 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69
                                                                                                         APPLICANT:

APPLICANT:

APPLICANT:

TITLE OF INVENTION:

Receptors and Uses Thereof

NUMBER OF SEQUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSED:

ADDRESSED:

CORPETS:

ADDRESSED:

ADDRESSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
14.0%; Score 285.5; DB 1; Length 520;
Best Local Similarity 24.8%; Pred. No. 1.6e-17;
Matches 96; Conservative 71; Mismatches 151; Indels 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                373 MNRQFRQAYGSIL----KRGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           351 SSKEFKRAFVRILGCQCRGRGRRRRR 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/952,798
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 37690I
TELECOMMUNICATION INFORMATION:
TELEFAN: (212) 977-9550
TELEFAN: (212) 664-0525
TELEFAN: (212) 422523 COOP UI
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 520 amino acids
TYPE: amino acids
Sequence 4, Application US/08334698
Patent No. 5556753
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-334-698-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      · 상 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - g
```

Search completed: September 24, 2004, 08:40:54 Job time : 31 secs

Politica de la company de la c

```
Sequence 1, Appli
Sequence 22, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 3, Appli
Sequence 1, Appli
Sequence 15, Appli
Sequence 16, Appli
Sequence 16, Appli
Sequence 16, Appli
Sequence 16, Appli
                                                       September 23, 2004, 22:25:34 ; Search time 103.224 Seconds (without alignments) 7048.158 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                               US-10-029-436-1
1311
1 ttgaatgctaggttctgatt......caggaccaaagtggcaggta 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                              Issued_Patents NA:*
1: /cgn2_6/ptodate/2/ina/5A_COMB.seq:*
2: /cgn2_6/ptodate/2/ina/5B_COMB.seq:*
3: /cgn2_6/ptodate/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodate/2/ina/6B_COMB.seq:*
5: /cgn2_6/ptodate/2/ina/PCTUG COMB.seq:*
6: /cgn2_6/ptodate/2/ina/PcTUG COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                    682709 seqs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                      OM nucleic - nucleic search, using sw model
                                                                                                                                       IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                      \overset{\mathcal{Q}}{\circ}
                                                                                                Title:
Perfect score:
Sequence:
                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                  Database :
                                                                                                                                                                     Searched:
                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                          Result
No.
```

	Sequence 6, App Sequence 1148, Sequence 1148, Sequence 209, A Sequence 9, App Sequence 14, App Sequence 11, App Sequence 14, App Sequence 14, App Sequence 14, App Sequence 14, App Sequence 14, App Sequence 17, App Sequence 5, App Sequence 5, App Sequence 5, App Sequence 5, App Sequence 5, App Sequence 5, App		DES B RECEPTOR	
-	US-09-077-675A-6 US-09-077-674-6 US-09-017-674-1448 US-09-170-496D-87 US-09-170-496D-209 US-09-170-496D-209 US-09-176-75A-9 US-09-077-675A-9 US-09-077-675A-9 US-09-077-675A-9 US-09-077-673A-14 US-09-077-674-14 US-09-078-674-14 US-09-08-334-698-5 US-08-334-698-5 US-08-722-190-5	ALIGNMENTS	dy dy CLONE HNFJD1S THAT ENCODES FL HUMAN 7-TRANSMEMBRANE RECEPTOR seecham Corporation indows Version 2.0 08/775,428 7 7 ATG50042 11:	
	5.7.7 5.7.7 5.7.7 5.7.7 10088 10088 10088 10088 10088 10088 10088 10088 10088 10088 10		lication US/0877542 MATION: Sathe, Ganesh Bergema, Derk Bergema, Derk Bergema, Derk Bergema, Derk Bergema, Derk Bergema, Derk Bergema, Derk Bergema, Derk Bergema, Derk Bergema, Derk Bellis, Cacherine COUNTION: A NOVEL HU VCE ADDRESS: SmithKline Beecha OF Swedeland Road OF Prussia OF Prussia OF Prussia A NOVABLE FORM: BE Diskette E Diskette E Diskette E Diskette SYSTEM: DOS Swedeland Road A NOVABLE FORM: BE DISKETTE BE OB-DAN-1997 TON NOVABER: COMPATION: ANTION DATA: ANTION DATA: ANTION DATA: ANTION DATA: ANTION NOVABER: BE: CONCRET NUMBER: CONCRET NUMBER: BE: CONCRET NUMBER: CONCRET NUMBER: BE: CONC	CTERISTICS: 8 base pairs ic acid : single inear cDNA
	228 239 230 244 244 244 254 255 255 255 255		ESULT 1 S-08-775-428- Sequence 1, Patent No. 5 GENERAL INS APPLICANT APPLICANT APPLICANT APPLICANT TITLE OF TIT	SEQUENCE CHARA LENGTH: 149 TYPE: nucle STRANDEDMESS TOPOLOGY: 1 MOLECULE TYPE: S-08-775-428-1
			CD	D

Length 1498;

DB 2;

Score 1256.4; Pred. No. 0;

95.8%;

Query Match Best Local Similarity

Σ	tches 1257; Cons	•
දු දු	49 TTAGCCTCTATCATGTGGAACAGCTCTGACGCAACTTCTCCTGCTACCATGAGTCTGTG 108 -	OY 1129 AACTCTACACTCATGCTTCAACCCTGTGCTCTATGCACGCCCAA 1188 Db 1144 AACCTCACTGGCTCAATGGTTGCATCAACCTCTATGCAGCATGAACGCCAA 1203
۶۶ و	TATCGTTATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGTGGTGGTGACAGGCACCGTG TATCGTTATGTTGCAGTTAGCTGGGGGGGGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT	QY 1189 TTCCGCCAAGCATATGGCTCCATTTTAAAAAAGGGCCCCGGAGTTTCCATAGGCTCCAT 1248 Db 1204 TTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGGCCCCGAAGTTTCATAGACTCCAT 253
3 8	5	TAGA b で用品目のようには、
g q	169 GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCGATTCAAC 228	
y d		RESULT 2 US-09-364-425B-22
8	** ***********************************	; Sequence 22, Application US/09364425B ; Patent No. 6653086
2 A	0 0	; GENERAL INFORMATION: ; APPLICANT: Behan, Dominic P. ; APPLICANT: Chalmers. Derek T.
රු ප්	349 GGGCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG 408	
ço d	rn	; TITLE OF INVENTION: Endogenous, Constitutively Activated G Protein-Coupled Orphan Recept FILE REFERENCE: Aren0047; CURRENT APPLICATION NUMBER: US/09/364,425B
} 8	- SCANGELINGUITALITACITANGELITITITICCCAAGITITITAGGGGGGGGGGGGGGGGGGGG	ΗĀ
임	, α	; PRIOR FILING DATE: 1988-07-31 ; PRIOR APPLICATION NUMBER: 60/106,300 ; PRIOR FILING DATE: 1904-10-30
60 60	n,	; PRIOR APPLICATION NUMBER: 60/110,906 ; PRIOR FILING DATE: 1998-12-04 ; PRIOR APPLICATION NUMBER: 60/121,851
ò	COTT & CAPOTOR CONTRACTOR A MAN A MA	; PRIOR FILING DATE: 1999-02-26 ; NUMBER OF SEQ ID NOS: 60
43 12 13 13 13 13 13 13 13 13 13 13 13 13 13	4.	ARE: Patentin ve NO 22 TH: 1382
9 9	649 ITCTATTGCCTCATCCACCGCCAGGTCAAACGAGCACAGGCACAGGCCCAATACAAG 708 	; TYPE: DNA ; CRGANISM: Homo sapiens US-09-364-425B-22
ò	9 TIGCGACAGGAAGCATCCACTCCACTCCTGGTCTGACTCATGAGGCCATGCTGGT	20.0
QQ	BAGGCCATGCCTGGT	Matches 182
ر م م	769 CGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT 828 	OY 160 GGCACGIGGGCAATGIGGTCACCCTACTGGCCTTGGCCATCCAGCTCGGTACC 219 Db 181 GTCTGCCTGGGAAACCTGGTCATCGTGGTCACCTTGTACAAGAAGTCCTACCTCACCT
\$\$ qa	88	Oy 220 GGATTCAACCTGCTCATAGCCAACCTCACACTGGTGATCTCCTCTACTGCACGCTCTT 279
Sy Dp	4. 6	Qy 280 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGGCGCACGGTGCCACGGTGCCACTTCTGC 339 Db 301 CTGCCTTTTGTGGTGACGACGCTCCATCCGCAGGGAATGGATCTTTGGTGTGTGT
ò á	9 AAAGCCCAGCCAATTAAAGGAGCCAGAAGCTCCGGATTCTTCATCGAAATTTGGGAAG 10	OY 340 AGGGTATTTGGGTCCTCCTTTTTGCCTCCAATTCTGTCTCAACCTCTGACCCTCTGCTC 399 Db 361 AACTTCTGCCTTCTTATATCTGTATATCTATATCTATCTA
g &	AAGCCCAACCAATTAAAGGAGCCAGAAGAAGGACTCCGGATTCTTCATCGGAATTTGGGAAG 102	400
qq	2 4	421 ATTGCCATCGACCGCTACTATGCTGTCCTGTACCCCATGGTGTACCCCATGAAGATCACA
\dagger \dagge	Η,	OY 460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCTCTGGGTT 498 Db 481 GGGAACCGGGCTGTGATGGCACTTGTCTACATCTGGCTT 519
	•	

```
Fri Sep 24 14:01:02
```

460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT

```
g
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220 CGAITCAACCTGCTCATAGCCAACCTCACACTGATCTCCTCTACTGCCACGCTCTT 279
347 CTCAGCAACAAGTTCGTCTTCAGCCTGACTCTGTCCAACTTCCTGCTGTTGGTG 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      287 Grerederiogadacerconegrearederesecritoracaagaagreeraeereeee 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407 CTGCCTTTTGTGGTGACGAGCTCCATCCGCAGGGAATGGATCTTTGGTGTGGTGTGGTGC 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340 AGGGTATTTGGGCTCCTCTTTTGCCTCCAATTCTGTCTCCATCTGACCCTCTG 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280 cagciccircrorgigaacaccircaaccigcacigeacacegeacegargecaccirciec 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              467 kacricicricitororaccigorgarckaciótácokackitáciakótótácágará 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           400 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 6.7%; Score 87.8; DB 1; Length 1584; Best Local Similarity 53.7%; Pred. No. 1.3e-15; Matches 182; Conservative 0; Mismatches 157; Indels 0.
                                                  Sequence 2, Application US/08748485
Patent No. 5817480
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Au-Young, Janice
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Guegler, Karl J.
APPLICANT: Guegler, Karl J.
APPLICANT: Guegler, Karl J.
APPLICANT: Murry, Lynn E.
ITILE OF INVENTION: NOVEL HISTAMINE H2 RECEPTOR
NOMBER OF SEQUENCES:
ADDRESSEE: INVYTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER PHARMACEUTICALS, INC.
STREET: All Porter Drive
COUNTRY: US
STREET: All Alco
CONFUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM COMPATION
MEDIUM TYPE: Diskette
COMPUTER: IBM COMPATION
SOFTWARE: FasteSQ Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/748,485
FILING DATE: Herewith
CLASSIFICANTION NUMBER:
ATTORNEY/AGRYT INFORMATION:
MAME: BILLINGS ALGE
TELECOMMUNICATION INFORMATION:
TELESCOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: LENGTH: 1584 base pairs TYPE: nucleic acid STRANDEDRESS: single TOPOLOGY: linear IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LIBRARY: Consensus
; CLONE: 1722180
US-08-748-485-2
RESULT 3
US-08-748-485-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

PRESENT 4 PRESENT 4 PRESENT 4 PRESENT 4 PRESENT 4 PRESENT 4 PRESENT 4 PRESENT 4 PRESENT 10
SULT 4 -09-016-434- Saciation Co. 28 Parcian No. 28
SULT 4 -09-016-4 Pacent No GENERAL APPLIC APPLIC APPLIC APPLIC APPLIC APPLIC CONNER CONNER CONNER STAR STAR FILLI CLAS ATTORN APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL FILLI CLAS APPL C
San San San San San San San San San San

g ઠે g

```
465 ccarcáaccácracratecreracerácceardareraceceargasaricacadagá 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  164 CCGTGGGCAATGTGCCTCACCCTACTGGCCATCCAGCCCAAGCTCCGGTACCCGAT 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225 coregegadacrigercarcercacerraradadada conservente 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224 TCAACCTGCTCATAGCCAACCTCACAGGCTGATCTCCTCTACTGCACGCTCCTTCAGC 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              284 CCTTCTCTGTGGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGCAGGG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           404 CACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  285 GCAACAAGTTCGTCTTCAGCCTGACTCTGTCCAACTTCCTGCTGTCGTTGGTGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1. Application US/09030582

Patent No. 5994506

GENERAL INFORMATION:
APPLICANT: SOOPET, DANIEL R

IITLE OF INVENTION: ADRENERGIC RECEPTOR

ONRIÈRE POÈ SEQUENCES:
ADDRESSEE: Carella, Byrne, Bain, Gilfillan, Cecchi,
STREET: 6 Becker Farm Road

CITY: Roseland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 87; DB 2; Length 248
Pred. No. 2.8e-15;
0; Mismatches 155; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/030,582
                                                                                                                                                                                                                  464 AGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 498
                                                                                                                                                                                                                                                                                                         525 Accederraredecacirerracarcieecir 559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36,134
R: 325800-324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/467,568
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 201-994-1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 2481 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Ferraro, Gregory D
REGISTRATION NUMBER: 36,1
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 53.7
Matches 180, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201-994-1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101..1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 07068-1739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -09-030-582-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-030-582-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DĐ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
400 AICGCACTGGGACGCIACCTCCTCAITGCCCAACCTTTTTCCCCAAGTTTTCAGT 459
                                                                                            527 Africicariciaciacia de la contra dela contra de la contra del la contra del la contra del la contra del la contra del la contra de la contra de la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           225 ccraeceadaccientercarcerererenterada a consecuente 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   285 GCAACAAGTICGICTTCAGCCIGACTCIGTCCAACTICCIGCTGICGGIGTIGGIGCTGC 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTTCTCTGTGGACACCTACCTCCACCTGCCACCGGTGCCACCTTCTGCAGGG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             344 TATTIGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGATCG 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    405 rererideceretracereareachectecacaracia de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adected de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adectedes de adected de adectedes de adectedes de adectedes de adectedes de adected de adectedes de adectedes de adectedes de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected de adected 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 345 crintergendaceactrocarcecageandearcringererageageacr 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       224 TCAACCTGCTCATAGCCAACCTCACAGCTGATCTCCTCTTACTGCACGCTCCTTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              164 CCGIGGGCAATGIGCICACCCIACTGGCCITGGCCATCCAGCCCAAGCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 87; DB 1; Length 248
Pred. No. 2.8e-15;
0; Mismatches 155; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/08467568
Sequence 1, Application US/08467568
Patent No. 5817477
GENERAL INPORMATION:
APPLICANT: SOOPET, DANIEL R
TITLE OF INVENTION: ADRENBRGIC RECEPTOR
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: Carella, Byrne, Bain, Gilfillan, Cecchi,
ADDRESSEE: Stewart & Olstein
STREET: 6 Becker Farm Road
                                                                                                                                                                                                                                                                               587 GGGAACCGGGCTGTGATGGCACTTGTCTACATCTGGCTT 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,568
                                                                                                                                                                                             460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/467,568
FILING DATE: 06-JUN-1995
ACLOSSIFICATION: 514
ACTORNEY/AGENT INFORMATION:
NAME: Ferraro, Gregory D
REGISTRATION NUMBER: 36,134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 07068-1739
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 32 TELECOMMUNICATION: TELEPHONE: 201-994-1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear _
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: TRENGTH: 2481 hard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 53.7%;
Matches 180; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2481 base pairs
nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
101..1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 6 BeckerITY: Roseland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
LOCATION:
```

δ Db ठे qq

```
405 TCTCTGCCCTCTACCTGCTGATCAGCTCTGCCAGCATGCTAACCCTCGGGGTCATTG 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREEL:
CITY: Rahway
STATE: New Jersey
ANTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICALLO..
FILING DATE:
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION UNMER: 08/229,276
FILING DATE: 14-APR-1995
ATTORNEY/AGENT INFORMATION:
NAME: APPOLITATION
REGISTRATION NUMBER: 34,087
REFERENCE/DOCKET NUMBER: 19169Y
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                   RESULT 8
US-08-722-001-17
US-08-722-001-17
Sequence 17, Application US/08722001
Patent No. 5760054
GENERAL INFORMATION:
APPLICANT: Thompson, Wayne J.
APPLICANT: Thompson, Wayne J.
APPLICANT: Nerehberg, Jennie B.
APPLICANT: Nerehberg, Jennie B.
APPLICANT: Bell, Ian M.
TITLE OF INVENTION: ALPHAIC ADRENEI
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: (908)594-4720
TELEX: 138825
INPORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
LENGTH: 921 base pairs
TYPE: nucleic acid
STRANDEDRES: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Merck & Co., Inc. STREET: 126 Lincoln Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HYPOTHETICAL:
HYPOTHETICAL:
ANTI-SENSE: N
US-08-722-001-17
                                                                                                                    g
                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                      ò
       344 TATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCG 403
                                   404 CACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCA 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   164 CCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGAT 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              285 GCAACAAGTTCGTCTTCAGCCTGACTCTGTCCAACTTCCTGTCCGTGTTGGTGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              284 CCTICTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         345 crirrergendaceagerccarceaggaargaarcerragicnagrengeagaer 404
                                                                                                                                                465 CCATCGACCGCTACTATGCTGTCCTGTACCCCATGGTGTACCCCATGAAGATCACAGGGA 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 225 cerededahaceredrehedredeneneeringrachadahdreereereereere 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224 TCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGC 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         344 TATITGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCG 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 2481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 87; DB 5; Length 248
Pred. No. 2.8e-15;
0; Mismatches 155; Indels
                                                                                                                                                                                                464 AGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 498
                                                                                                                                                                                                                                           525 Accedecrerearedearcirerearacarciederr 559
                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN,
STREET: 6 BECKER FARM ROAD
                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application PC/TUS9409051
GENERAL INFORMATION:
APPLICANT: L1, ET AL.
TITLE OF INVENTION: Adrenergic Receptor
NUMBER OF SEGIENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
COMPUTER: 18M PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
RILING DATE: Submitted herewith
FILING APPLICATION:
RAPLICATION NUMBER:
FILING APPLICATION
FRICK APPLICATION
FRICK APPLICATION
FRICK APPLICATION
FRICK APPLICATION NUMBER:
FILING APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 36,134
REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 2481 BASE PAIRS TYPE: NUCLEIC ACID STRANDEDNESS: SINGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 53.7%;
Matches 180; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: ROSELAND
STATE: NEW JERSEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; MOLECULE TYPE: CDNA
PCT-US94-09051-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LINEAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: U
                                                                                                                                                                                                                                                                                                                                           PCT-US94-09051-1
                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \stackrel{>}{\circ}
                                                                                                à
```

```
160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 219
404 CACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCA 463
                                                                 465 ccarceacederacionargenerecrenaceeraceeracaeerenaceereargaagareaedaga 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183 ecchicéréséchachterretrarenterreresechtechesecheseken 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      220 CGATTCAACCTGCTCATAGCCAACCTCACAGCTGGCTGATCTCCTCTACTGCACGCTCCTT 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ccaccaactacticatigicaaccigeccaigecgaccigetgingagerreacegie 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALPHAIC ADRENERGIC RECEPTOR ANTAGONISTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
6.3%; Score 83; DB 1; Length 921
Best Local Similarity 52.1%; Pred. No. 2.5e-14;
Matches 185; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
GURRANT APPLICATION DATA:
APPLICATION NUMBER: US/08/722,001
                                                                                                                                                        464 AGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 498
                                                                                                                                                                                                                         525 Accedentaridaridecarinericarataria 559
```

Fri Sep 24 14:01:03 2004

RESULT 10 US-08-334-698-3 243 8 g ઠ g ò g ò d δ g 459 363 GACATCTGGGCCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 422 423 Arcticaricaridaridaridasasiasasinas attaina aratica attaina aratica attaina aratica attaina aratica attaina crecerrereacecerradacerecreceracidesergerecrececedarericier 362 340 AGGGTATITIGGGCTCCTCTTTTGCCTCCAATTCTGTCTCCATCTGACCCTCTGCCTC 399 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 483 cagadaaadaccarcridddchdrachdangrchdddhcridrodaccardarch 537 460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 514 APPLICANT: Thompson, Wayne J.
APPLICANT: Huff, Joel R.
APPLICANT: Nernberg, Jennie B.
APPLICANT: Lee, Hee-Yoon
APPLICANT: Bell, Ian M.
TITLE OF INVENTION: ALPHAIC ADRENERGIC RECEPTOR ANTAGONISTS
CORRESPONDENCE: 35 Length 1567, COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/722,001 Score 83; DB 1; Le Pred. No. 3.3e-14; 0; Mismatches 170; Sequence 24, Application US/08722001
Patent No. 5760054
GENERAL INFORMATION:
APPLICANT: Thompson, Wayne J.
APPLICANT: Huff, Joel R.
APPLICANT: Nerenberg, Jennie B. TELEX: 138825 INFORMATION FOR SEQ ID NO: 24: SEQUENCE CHARACTERISTICS: Query Match
Best Local Similarity 52.1%;
Matches 185; Conservative TELEPHONE: (908)594-3462 TELEFAX: (908)594-4720 LENGTH: 1567 base pairs TYPE: nucleic acid STRANDEDNESS: both both MOLECULE TYPE: CI HYPOTHETICAL: NO ; ANTI-SENSE: US-08-722-001-24 g à g ò d à

160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 219

à

Indels

220 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT 279 399 400 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCTAAGCTTTTCCCCCAAGTTTTCAGT 459 423 Arcrecaredaredentearedaggiacacnácienteracagnaredeacedagicae 303 crececircicaeceeceragaegiecreecracieecreeceeceeeeagarcircier 362 363 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 422 280 CAGCCCTTCTCTGTGGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGC 340 AGGGTATTIGGGCTCCTCTTTTGCCTCCAATTCTGTCTCCATCCTGACCTTCTGCCTC 460 GCCAAGGGGATAGTGCTGGCACTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 514 483 cegacia adecentrité de certe de rereré de reres de recentrat en 1937 Sequence 3, Application US/08334698
Patent No. 5556753
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Bard et al.
TITLE OF INVENTION: Receptors and Uses Thereof
TITLE OF INVENTION: Receptors and Uses Thereof
CORRESPONDENCE ADDRESS:
ADDRESSE: COOPER & DUNHAM
STREET: 30 Rockefeller Plaza
CITY: New York
STATE: New York
COUNTRY: U.S.A. CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/952,798
FILING DATE: NUMBER: US/07/952,798
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: 28,678
REPERENCE/DOCKET NUMBER: 376901
TELEPHONE: (212) 977-9550 SOFTWARE: Patentin Release #1.24 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/334,698 TELEFAX: (212) 977-9550
TELEX: (212) 664-0525
TELEX: (212) 422523 COOP UI
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
TYPE
TYPE COUNTRY: U.S.A.
ZIP: 10112
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-D HYPOTHETICAL: N
ANTI-SENSE: N
FEATURE:
NAME/KEY: CDS
LOCATION: 124..1683
OTHER INFORMATION: TYPE: nucleic acid STRANDEDNESS: sing unknown MOLECULE TYPE: FILING DATE

g

임 à g ઠે

ð

```
400 AICGCACIGGGACGCIACCICCICCACTACCIAAGCITITICCCCAAGITITICAGI 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            358 cccaccalcracricarreralcraeccaresceachecrecreracrescrace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               280 CAGCCCTTCTCTGTGGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    418 creccciricicaeceececraeaeerecreecracieeerecreeerecreeecearcricier 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        340 AGGIAITIGGGCTCCTCTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           298 gecarcerdescalacarecraercarerrereresecerscales de 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            538 Arcrecaredarederácaredegerederacrereredagariceaegeregerede 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCCATCCAGCCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     598 cagadaaadaccarcritdededridericadrerchedererrigredacearchicr 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Jonathan A. Bard et al.
TITLE OF INVENTION: DNA Encoding Human Alpha 1 Adrenergic
TITLE OF INVENTION: Receptors and Uses Thereof.
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: COOPER & DUNHAM Lip
STREET: 1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.3%; Score 83; DB 1; Length 173 ilarity 52.1%; Pred. No. 3.5e-14; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036
COMPUTER: New York
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN RE-Lease #1.24
CURRENT APPLICATION DATA:
APPLICATION WIMBER: US/08/468,939
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 41337-1B
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/08468939 Patent No. 5714381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (212) 391-0626
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1738 base pairs
TYPE: nucleic acid
                                                                                                                                    NAME/KEY: CDS
LOCATION: 124..16
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 185; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
ANTI-SENSE:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-468-939-3
                                                                                                                                                                                                                                                                                                                                                         US-08-228-932-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               298 eccarcereeccaacarcerererererereresecerecaaceecacerecesecreeses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220 CGATTCAACCTGCTCATAGCCAACCTCACACGGCTGATCTCCTTTACTGCACGCTCCTT 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        478 cacaricricacionacionicaricricaristracione de caracidario de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400 AICGCACIGGGACGCIACCICCICAITGCCCCACCCIAAGCITITICCCCAAGITITICAGT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                538 Arcrecaredarederacaredegerececrácicorederaredeacarederegrenes 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        418 creccerricres de de constante de la crece de constante de constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3, Application US/08228932
Patent No. 5578611
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Charles Gluchowski, Carlos C. Forray, George Chiu,
APPLICANT: Theresa A. Branchek, John M. Wetzel and Paul R. Hartig
TITLE OF INVENTION: USE OF ALPHA-IC SPECIFIC COMPOUNDS TO TREAT BENIGN
TITLE OF INVENTION: PROSTATIC HYPERPLASIA
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS: 6
CORRESPONDENCE ADDRESS: COOPER & DUNHAM
STREET: 30 ROCKEFEILER PLAZA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               358 cccaccaactronricarrendadoresconesceacerecientesacrreacere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   340 AGGGTATTTGGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCTCTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                           160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                598 csaksákaksczatorrásócsórsorckársrorásásrorrárcaccsrokrór 652
                                                                                                                                                                                                                                                                                              .
                                                                                                                                                          Length 1738;
                                                                                                                                           Score 83; DB 1; Length 173
Pred. No. 3.5e-14;
0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

APPLICATION NUMBER:

FILING DATE: 13-APR-1994

CLASSIFICATION NUMBER: 28,678

REGISTRATION NUMBER: 28,678

REGISTRATION NUMBER: 28,678

REGISTRATION NUMBER: 28,678

REGISTRATION NUMBER: 28,678

TELEPHONE: (212) 977-9550

TELEFAX: (212) 977-9550

TELEFAX: (212) 42253 COOP UI

INPORMATION FOR SEQ ID NO: 3:

SEQUENCE CHARACTERISTICS:

LENGTH: 178 base pairs

TYPE: nucleic acid

STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10112
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
COMPATIBLE
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA (genomic)
                                                                                                                                                  Query Match
Best Local Similarity 52.1%;
Matches 185; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
US-08-228-932-3
                      US-08-334-698-3
```

```
LENGIH: 1738 base pairs
                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-406-855A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
US-08-722-190-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298 GCCATCGTGGGCAACATCCTAGTCATCTTGTCTGTGGCCTGCAACCGGCACCTGCGGACG 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             358 CCCACCAACTACTTCATTGTCAACCTGGCCATGGCCGACCTGCTGTGAGCTTCACCGTC 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           280 CAGCCCTTCTCTGTGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    340 AGGGTATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      538 ATCTCCATCGATCGCTACATCGGGGTGCGCTACTCTCTGCAGTATCCCACGCTGGTCACC 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            400 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAAGCTTTTTCCCCAAGTTTTCAGT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCCTACTGCACGCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      418 crecciricicaecescerasassiscresecraciaesses creceses de constructor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           598 cgcaccarcricácecrácricacrerendes es con contra es contra es contra contra es contra contra es contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra contra co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                      Query Match 6.3%; Score 83; DB 1; Length 1738; Best Local Similarity 52.1%; Pred. No. 3.5e-14; Matches 185; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: DAS Bard et al.
TITLE OF INVENTION: DAS Encoding Human Alpha 1 Adrenergic
TITLE OF INVENTION: Receptors and Uses Thereof
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
STREFT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: White, John P. 28,678
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 41337-A-PCT-US/JPW/KDB
TELECOMUNICATION INPORMATION:
TELEPHONE: (212) 278-0400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 10036
ZIP: 10036
COMPUTER READABLE FORM:
MEDLUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.30
CURRENT APPLICATION DATA:
FILING DATE: 21-AUG-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SSEE: Cooper & Dunham LLP
F: 1185 Avenue of the Americas
New York
New York
XY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3, Application US/08406855A
Patent No. 5861309
GENERAL INFORMATION:
APPLICANT: Jonathan A. Bard et al
                                MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: N
ANTI-SENSE: N
FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (212)
TELEFAX: (212)
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                  124..1683
    unknown
                                                                                                                                                                                                                          ; LOCATION: 124..16; OTHER INFORMATION: US-08-468-939-3
TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
US-08-406-855A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACC 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     298 GCCATCGTGGGCAACATCCTAGTCATCTTGTCTGTGGCCTGCAACCGGCACCTGCGGACG 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   358 CCCACCAACTACTTCATTGTCAACCTGGCCATGGCCGACCTGCTGTTGAGCTTCACGTC 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            280 CAGCCCTTCTCTGTGGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340 AGGGTATTTGGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     400 ATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538 Arcrocarcearcecracarceaecerececracrereceaerarceaecerecreeres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Paul R. Hartig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220 CGATTCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         598 cegaccarcorredececrecicatererecerredecerteres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT
                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                    Length 1738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3, Application US/08722190
Patent No. 5990128
GENERAL INFORMATION:
APPLICANT: Charles Gluchowski, Carlos C. Forray, George
APPLICANT: Chiu, Theresa A. Branchek, John M. Wetzel and P
TITLE OF INVENTION: USE OF ALPHA-1C SPECIFIC COMPOUNDS TO
TITLE OF INVENTION: TREAT BENIGN PROSTATIC HYPERPLASIA
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: ADDRESSEE: ADDRESSEE: COOPER & DUNIAM LLP
STREET: 1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                    Query Match 6.3%; Score 83; DB 2; Length 173
Best Local Similarity 52.1%; Pred. No. 3.5e-14;
Matches 185; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 41878-D-PCT/JPW/AGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/722,190
FILING DATE: 4-APR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patentin Release #1.24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC
nucleic acid
IDNESS: single
IY: unknown
                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: 124.1683
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALL.
STREET: 1100.
CITY: New York
STATE: New York
                                               TOPOLOGY: unkno
MOLECULE TYPE: DN
HYPOTHETICAL: N
ANTI-SENSE: N
FEATURE:
```

```
HYPOTHETICAL:
ANTI-SENSE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298 eccarceredecadorarechagrearentereresecerecadesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentesecentese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    220 CGATICAACCIGCICAIAGCCAACCICACIGGCIGAICTCCTCTACIGCACGCTCTT 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358 cccaccaacracricarrercaaccresccaresccaesccrecrecrescrerercaccerc 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               280 cagocorrerangadaceraceraceraceraceaceaceacegeracegeracegrace 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418 crecectricica ecedece crasa esta esta consecrações estas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           340 AGGGTATTTGGGCTCCTTTTTGCCTCCAATTCTGTCTCCATCTGACCTTCTGCCTC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             478 sacarcricoscaecceriosarierecreriscencacaceicearicidasecrieridesec 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              400 AICGCACIGGGACGCIACCICCICAITGCCCAACCTITITCCCCAAGITITCAGT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCCATCCAGCCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCT 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           598 cggággaaggccarcriggcgcrigcrcagrercrigggrerrigrccaccercarcri 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 6.3%; Score 83; DB 2; Length 1730
Best Local Similarity 52.1%; Pred. No. 3.5e-14;
Matches 185; Conservative 0; Mismatches 170; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3, Application US/08244354
Patent No. 6015819
GENERAL INFORMATION:
APPLICANT: Charles Gluchowski, et al.
TITLE OF INVENTION: USE OF ALPHA-IC SPECIFIC COMPOUNDS:
TITLE OF INVENTION: TREAT BENIGN PROSTATIC HYPERPLASIA
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: 0.5.4.

ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC
COMPUTER: ABACENTIN Release #1.24
SOFTWARE: Patentin Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/244,354
FILING DATE: April 1, 1997
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: COOPER & DUNHAM LLP
STREET: 1185 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1738 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA (genomic)
(212) 278-0400
TELEPHONE: (212) 278-04(
TELEFAX: (212) 391-0525
TELEX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
LOCATION: 124..1683
COTHER INFORMATION:
US-08-722-190-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYPOTHETICAL:
ANTI-SENSE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
280 CAGCCCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGC 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        340 AGGCTATTTGGGCTCCTTTTTTGCCTCCAATTCTGTCTCCTGACCTTGACCTTGCCTC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     400 ATCGCACTGGGACGCTACCTCCTTAGCCCTAAAGCTTTTCCCCAAGTTTTCAGT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       538 Archiccaricdandechacarbesesingeserachterichesanarbeiterseringerichen 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220 CGATTCAACCTGCTCATAGCCAACCTCACAGCTGATCTCCTCTACTGCACGCTCCTT 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  358 cccaccadactacricaridicaaccidedcardecceaccideriecrericaccerc 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418 crecccirchcaecedeceracaeserecreecracieserrecresecreseserrititier 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             478 GACATCTGGGCAGCCGTGGATGTCCTGTGCTGCACAGCGTCCATTCTGAGCCTGTGCGCC 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           298 eccarcerescarcerastearetraterrererescerecaseseses 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160 gecaccergescaarerecteacceracrescerrescearceasceraceareceare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598 csakasakaccarcridddacrerakarardraddrardradacacarcardi 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  460 GCCAAGGGGATAGTGCTGGCACTGAGCACCTGGGTTGTGGGGCGTGGCCAGCT 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
6.3%; Score 83; DB 3; Length 1738;
Best Local Similarity 52.1%; Pred. No. 3.5e-14;
Matches 185; Conservative 0; Mismatches 170; Indels
NAME: White, John P. 8,678
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 41878-D-PCT-US/JPW
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 278-0400
TELEFAX: (212) 391-0525
                                                                                                                                                                                                                                                                                                                                                                                                                                DNA (genomic)
                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTER.STICS:
LENGTH: 1738 Base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
124..1683
                                                                                                                                                                                                                                                                                                                                                                                                     unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS

LOCATION: 124..16

CTHER INFORMATION

US-08-244-354-3
                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOCATION MOLECULE TYPE: D
```

ö

Search completed: September 24, 2004, 04:51:46 Job time : 105.224 secs

.

.

```
September 23, 2004, 22:04:24; Search time 5339.89 Seconds (without alignments) 10641.181 Million cell updates/sec
                                                                                                                                                                                                         1 ttgaatgctaggttctgatt......caggaccaaagtggcaggta 1311
                                                                                                                                                                                                                                                                                                                                 6940544
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                              3470272 segs, 21671516995 residues
                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                      OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                            IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em_htgo_mus:*
em_htgo_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em_htg_hum:*
em_htg_inv:*
em_htg_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tgo_hum:*
                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                htg_vrt:*
                                                                                                                                                                          US-10-029-436-1
1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em_sts:'em_un:*em_vi:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenEmbl:*
                                                                                                                                                                          Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database :
                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                         Run on:
```

Pred. No. is the number of results predicted by chance to have a

equal to the score of the result being printed,

esult No. No. No. No. 1 1 1306 2 1256.4 995.8 4 112566.4 995.8 7 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 1256.4 995.8 1 126.8 995.8 1 127.8 87.8 1 128.7 8 6.7 1 128.7 8	Length D 141003 14498 1535 1535 1535 1535 1535 1535 1535 153		ID AC078778 AF237762 AF237762 AF2345 BC020614 AX549299 AX549299 AX247564 AX19289 AR203289 AC021643 BC023249 AF272948 AC016463 BC0201646	AC078778 Homo sapi AF23762 Homo sapi AF237762 Homo sapi AX54299 Sequence BC020614 Homo sapi AX547564 Sequence BD144298 Novel G-p AB083586 Homo sapi AC021649 Mus muscu BC02249 Mus muscu AC021648 Mus muscu AC126846 Rattus no AC11643 Homo sapi BC021643 Homo sapi AC021643 Homo sapi AC021643 Homo sapi AC126846 Rattus no AC11643 Homo sapi BC229108 Endogeneo
22 2 2 8 8 2 7 8 8 8 2 7 8 8 8 2 8 8 2 8 8 8 2 8 8 8 2 8 8 8 2 8 8 8 8 7 8 8 8 8	141003 15535			1 V V U O U O U U U U U U U U U U U U U U
1125.56.44 995.125.66.44 995.1	4	0.0		- L u a u a u u u u a u u u a 4 H L -
12566.4 9 95. 112566.4 9 95. 112566.4 9 95. 112566.4 9 95. 111991.9 9 95. 11991.9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2 44 4444444444444444444444444444444444	0.0		- u o u o u u u o u u o a 4 4 L -
11200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 44 44 44 44 44 44 44 44 44 44 44 44 44	0.0		10000000000000000000000000000000000000
1256.4 9 95.1256.4	20 20 41 44 40 40 40 40 40 40 40 40 40 40 40 40	0.0		00000000000447
12100 121000 12100 12100 12100 12100 12100 12100 12100 12100 121000 121	2 2 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.0		1000000000447
111911 900 111911 900	24 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.0		NUUNOUU8447
8 8 9 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7	20 41 11 11 11 11 11 11 11 11 11 11 11 11	0.0		9 N O O O O O O O O O O
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	200742 20424 20424 1410 14404	0.0		20 0 U U S 4 H L
8 8 8 7 7 8 8 8 7 8 8 8 9 9 9 9 9 9 9 9	20742 157 161 14100 138 138 138 158 158	0.0		9678447
8 8 8 7 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9	157 14100 14100 1388 1388 1388 1388 1588 1588	00		W 4 4 4 7 5
895.00 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 8 8 7.75 8 7.75 8 7.75 8 8 7.75 8 8 7.75 8 8 7.75 8 8 7.75 8 8 7.75 8	161 24484 14100 1388 1388 1388 1588 1588	0		28447
88 87.7.8888.05.98.97.8888.05.98.97.8888.05.99.99.99.99.99.99.99.99.99.99.99.99.99	24484 14100 138 138 138 158 158		.C126846 .C016463 .D229108	8447
## 0 7 7 7 8 8 8 9 7 7 7 8 8 8 9 7 7 7 7 8 8 8 9 7 7 7 7	14100 138 138 138 158 158		C016463 D229108	4 4 7 -
8 8 9 7 7 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9	1388 1388 1588 1588 1588		3D229108	45:
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	13888			20.5
20000000000000000000000000000000000000	138 138 158 158		.R431783	
8 8 8 2 7 7 8 8 8 2 7 7 8 8 8 8 7 7 8 8 8 8	1138		X549134	13
8 8 8 7 7 8 8 8 9 7 7 7 7 8 8 8 8 7 7 8 8 8 9 7 7 8 8 8 9 7 8 8 8 9 7 8 8 8 9 7 8 8 8 9 7 8 8 8 9 7 8 8 8 9 7 8 8 9 9 9 9	158 158 158		15091890	α υ ι
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	158		R044154	1 5
88 27.88 87.98 87.98 87.98 87.98 87.99 88.97 88.79 88.70 88.	158		R269721	7 5
8 8 2 7 7 8 8 8 7 7 7 8 8 8 8 7 7 8 8 8 7 7 8 8 8 7 7 8 8 8 7 8 8 8 7 8 8 8 7 8 8 8 8 7 8	•		30007520	2 .
8 8 7.18 8.7.18	100		11.2.7.5468	0 U
8 877 6 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8	44.0		1012255 20020163	י ע
8 8 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	0.40		0000183	0.0
86.22 6.	4.0		R091709	70
8 87 6. 9 86.2 6.	2 4		X573819	81
86.2 6. 83 6.	248		30144779	177
83 6.	166		X467017	701
	156		IUMAIAR	2
1 83 6.	173		JR030766	176
2 83 6.	173		JR088757	375
3 83 6.	173		4R101770	77
83 6.	173		126009	6
5 83 6.	173		130002	12 Sequence
6 83 6.	173		183625	S Sequence
7 83 6.	173		JR228241	3241 Sequenc
83 6.	173		1R270839	1839 Sequenc
83	173		4R373863	863 Sequenc
83 6.	173		1X136023	5023 Sequenc
1 83 6.	173		1X137520	7520 Se
200	173		1SU03865	55 Huma
33	178		AX548750	3750 Sequenc
0 0 0 0 0 0	2,66			39 Homo sapi
	9 0			7458 H

141003 bp DNA linear PRI 21-FEB-2003	Homo sapiens 12 BAC RP11-968A15 (Roswell Park Cancer Institute Human BAC Library) complete sequence.						Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,	Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.		Muzny, D.M., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C.,	Alsbrooks, S.L., Amaratunge, H.C., Are, J.K., Ayere, M., Baliks, 1.,
RESULT 1 AC078778 LOCUS AC078778 1410	TION	ACCESSION AC078778	VERSION AC078778.34 GI:23307958	KEYWORDS HTG.	SOURCE Homo sapiens (human)	ORGANISM Homo sapiens	Eukaryota; Metazoa; Chord	Mammalia; Eutheria; Prima	REFERENCE 1 (bases 1 to 141003)	AUTHORS Muzny, D.M., Adams, C., Adio	Alsbrooks, S.L., Amaratung

ALIGNMENTS

Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Buck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buhay, C., Burrell, K.L., Byrd, N.C., Carron, T.F., Carter, M., Cavazos, S.R., Chacko, J., Christopoulos, C. Carron, T.F., Carter, M., Cavazos, S.R., Chacko, J., Christopoulos, C. Cardand, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Daladad, C., Enbai, C., Emerin, C., Endario, D. A., David, R., Delander, C., Bardar, C., Enbai, C., Emerin, C., Endara, C., Emerin, C., Harris, C., Lidous, C., Garcia, A., Garcia, A., Garcia, A., Garcia, A., Garcia, C., Garc

(bases 1 to 141003) Direct Submission Unpublished

Submitted (27-AUG-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA (bases 1 to 141003)

Direct Submission
Submitted (25-SEP-2002) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
(bases 1 to 141003)

Direct Submission
Submitted (21-FEB-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
ON SEP 25, 2002 this sequence version replaced gi:22477001.
INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email

/standard_name="SGC34021"

the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the Features listing.

STSs are identified using ePCR (Genome Res. 7:541-550) searches of a local database that includes entries from dbSTS, GDB, and ANNOTATION OF FEATURES:

Incal mapping efforts.

Repeats are identified using RepeatMasker (A. Smit and P. Green, unpublished.) for Human and Mouse sequences (A. Smit and P. Green, unpublished.) for Human and Mouse sequences similarity are identified by BLAST (Nuc. Acids Res. 25:3389-3402) similarity (expect < 1e-34) to the EST and cDNA sequences. Genes demonstrate at least two exons flamked by consensus splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.

SEQUENCING READ COVERAGE:Sequencing is completed to a minimum standard of double strand coverage with a minimum of 2 clones and 2 reads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 reads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the annotation as Low Coverage.

at URL: http://www.hgsc.bcm.tmc.edu:8088/quality.info/genbank.annotation.ht QUALITY OF INDIVIDUAL BASES:This sequence meets stringent quality standards - estimated error rate less than 1 per 10,000 bases. Reports of lowest quality individual bases and measures of base quality are listed below. Description of the metrics can be found

complement(1. .2005) /note="overlaps bases 1. .2005 of clone AC079313" function="clone overlap' .8075. .18234 'standard_name="NIB1371" organism="Homo sapiens" /mol_type="genomic_DNA" /db_xref="taxon:9606" /chromosome="12" /clone="RP11-968A15" 160. .659 'standard_name="RH158" Location/Qualifiers .. .141003 misc_feature source STS FEATURES

24640. .124653 function="single clone coverage" 28073. .128188 ard_name="SHGC-2501" .96157 18349. .1845/ /standard_name="D12S1927" 19062. .19158 'standard_name="Bdya3g12" 1395. .7<u>1</u>512 standard_name="D11S2560" 7459. .77710 14170. .84320 standard_name="D12S1994" 'standard name="RH102227" 'standard_name="D12S1966" .28451. .128635 'standard_name="RH78595" .8349. .18457 'standard_name="WI-7866" standard_name="A002C47" 8229. .18400 'standard_name="RH44735" 'standard_name="RH93620" 77704 8111. .18242 84944 standard 7500. 77459. 34697 misc_feature STS STS STS STS STS STS STS STS STS STS

```
6875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AF237762 1493 bp mRNA linear PRI 06-APR-2001 Homo sapiens orphan G protein-coupled receptor 84 (GPR84) mRNA, complete cds.
                                                                                                                                                                                                                     ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 6935
                                                                                                                                                                                                                                                                                                                                                                                                        CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7116 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 7175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Germany
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryofa, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

(bases 1 to 1493)
Wittenberger, T., Schaller, H.C. and Hellebrand, S.
An expressed sequence tag (EST) data mining strategy succeeding the discovery of new G-protein coupled receptors

J. Moll. Biol. 307 (3), 799-813 (2001)
                    6936 IGITTTGCTGTGTTCTCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACTT
                                                                                                                                                                                                                                                                                                                       AAGAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
                                                                                                                                                                                           961 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                         TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fuer
52, Hamburg 20246,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           84-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261 CCTAGICACCAGAATICAGGACIGICTCCTCCAGGACCAAAGIGGC 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 7221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="GPR84"
/note="gpr84"
/noto=rstrt=1
/product="orphan G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Therefore, T. and Hellebrand, S. Direct Submission Submitted (28-MAR. 2000) ZMM, Institut Entwicklungsneurobiologie, Martinistr. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_rref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AF237762.1 GI:12711470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="GPR84"
69. .1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11273702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7176
                                                                                                                                                                                                                                                                                                                                                                                                                       7056
                                                                                                                                                                 6816
                                                                                                                                                                                                                              9289
                                                                                                                                                                                                                                                                                                                                                         9669
                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                     9699
                                                                                                 6756
                                                                                                                                 901
                                                                                                                                                                                                                                                            1021
      781
                                                                     841
                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 2
AF237762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                      DP
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      \stackrel{\sim}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                     8
                                                                                          셤
                                                                                                                                ò
                                                                                                                                                              g
                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6692
                                                                                                                                                                                                                                                                                                                                                                                                                                      6035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6275
                                                                                                                                                                                                                                                                                                                                                                          5975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAccricacacregerearcrecrererecaedecrecricaececricaerereresecae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       crearrecedeceraacerrirecedaacrireacrecaaggaracregeda 6395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6155
                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATGTTGCAGTTAGCTGGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACCTCCACTGCACTGGGGGACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 360
                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                /standard_name="RH68193"
complement[138999. .141003)
/note="overlaps bases 196484. .198488 of clone AC023794"
/function="clone overlap"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTTTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCCACCGCCAGGTCAAACGAGCACACGAGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCATCCACTCCAACCATCTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGCTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       creereaccaccreeerreresecereeccaccrrrecreeccaccreeccacrarranara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CIGGIACCIGIAGICIIGCACCIGCAGCITIGACCGCAICCGAGGCCGGCCITACACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCCACCACCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                           ACCTACTGGCCTTGGCCATCGAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6096 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCGGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                          ATGIGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                 AACCTCACACTGGTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITGCCTCCAATICTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCATTGCCCACCCTAAGCTTTTCCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                             Length 141003
                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                           TIGAAIGCIAGGIICIGAIICCCICIICICCICIICCACCCI
                                                                                                                                                                                                                                                                               ص
..
                                                                                                                                                                                                                                                                               В
                                                    /standard name="RH64861"
135405. .135554
/standard name="WI-12071"
135413. .135494
/standard name="STS-Z40708"
137453. .137645
                                                                                                                                                                                                                                                                             Query Match 99.6%; Score 1306; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1306; Conservative 0; Mismatches
                                                                                                                                 137453. .137645
/standard_name="SHGC-555"
.aesaa. .138792
132415. .132543
/standard_name="WI-15869"
1334126
                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                             5916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                     STS
                                        STS
                                                                        STS
                                                                                                     STS
                                                                                                                                                                     SIS
```

g

g

g ò g 8

δ

g

à

D ð

ò

À.

g

\$ B \$

엄

QD

 δ

8

95 Pb Pb

```
TUCCGCCAAGCATATGGCTCCATTTTAAAAAGGGCCCCGGAGTTTCCATAGGCTCCAT 1256
                                                                                                                          GTGACTCGAATGTGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 1498)
Sathe, G.Madhusudan., Fuetterer, W.S., Bergsma, D.John. and Ellis, cDNA clone HNFJD15 that encodes a novel human 7-transmembrane receptor
                                               AAAGCCCAGCCAATTAAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG
                                                                       AAAGCCCCAGCCAATTAAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG
                                                                                                                                                                                                                                                          AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGATCAACAGCAAGAGGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCC
                                                                                                                                                                     AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA
                                                                                                                                                                                                                                                                                        TTCCGCCAAGCATATGGCTCCATTTTAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCAT
                                                                                                          GIGACTCGAATGTGTTTTGCTGTTTCCTTTTGCCCTGAGCTACATCCCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rcadecrerarcargradadeaderergaceceaerrerecergeraceargagrerere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTGTGGACACCTACCTCCACCTGCACTGCCACCACCACCTTCTGCAGGGTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   crecicalisecciacicacidecrearcrecicinacidecaeeerecrecicaeeeeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTT
                                                                                                                                                                                                                                                                                                                                                6; Length 1498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 95.8%; Score 1256.4; DB 6; Best Local Similarity 99.9%; Pred. No. 4.2e-313; Matches 1257; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent: US 5976834-A 1 02-NOV-1999;
Location/Qualifiers
1 .1498
/organism="unknown"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1498 bp
US 5976834.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AR083245
Sequence 1 from patent U
AR083245
AR083245.1 GI:10010035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown
                                                                          957
                                                                                                         1009
                                                                                                                                       1017
                                                                                                                                                                                                 1077
                                                                                                                                                                                                                               1129
                                                                                                                                                                                                                                                          1137
                                                                                                                                                                                                                                                                                        1189
                                                                                                                                                                                                                                                                                                                     1197
                                                                                                                                                                                                                                                                                                                                                   1249
                                                                                                                                                                                                                                                                                                                                                                              1257
                   897
                                               949
                                                                                                                                                                     1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
AR083245
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                              à
                                                                      g
                                                                                                         ö
                                                                                                                                 a
                                                                                                                                                            8
                                                                                                                                                                                          엄
                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                    CD
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ☆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
/protein_id="AAKO1857.1"
/db_xref="107:1271471"
/db_xref="107:1271471"
/tb_xref="107:1271471"
/translation="WINSSDARSCYHBSVLGYRYVAVSWGVVVAVTGTVGRVJTLLLA
LAIQPKLRTRFNLLIANLTLADLLYCTLLQPPSVDTYLHLHWRTGATPCRVFGLLLFA
SNSVSILTLCTLALGRYLTLAHFULEPPOVFSAGIOTALLYCTSTWVGGYSRAPENDIYI
LVPVVCTCSFDRIRGRPYTTIMGIYPVLGLSSVGIPYCLIHRQVKRAAQALDGYKLR
QASIHSNHVARTDEAMPGRFQELDSRLASGGPSGGISSEPVSAATTQTLGGDSSEVGB
PILLAILDARVQARRASPAKAQPIKGARRADDSSSEFFKYTRMCFRVFLCTALSYIP
FLLLNILDARVQAPRVYHMLAANLTWLNGCINPVLYAAMNRQFRQATGSTLKRGPRSF
HRLH"
                                                                                                                                                                                                                                             108
                                                                                                                                                                                                                                                                        116
                                                                                                                                                                                                                                                                                                       168
                                                                                                                                                                                                                                                                                                                                                                228
                                                                                                                                                                                                                                                                                                                                   176
                                                                                                                                                                                                                                                                                                                                                                                              236
                                                                                                                                                                                                                                                                                                                                                                                                                             288
                                                                                                                                                                                                                                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                896
                                                                                                                                                                                                                                                            CTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTG
                                                                                                                                                                                                                                                                                                                        CTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTG
                                                                                                                                                                                                                                                                                                                                                                GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                             CHGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
                                                                                                                                                                                                                                          TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                             GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGTGGACACCTACCTCCACCTGCACTGCCACCGGTGCCACCCTTCTGCAGGGTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCAACCTGACCCTCTGCCTCATCGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCTCCTCTTTTTGCCTCCAATCTGTCTCTCACCTCTGACCCTCTGCCTCATCGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTCATAGCCAACCTCACAGTGGCTGATCTCCTCTACTGCAGGCTCCTTCAGGCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGTGGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTCCCCCAAGTTTTCAGTGCCAAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACGCTACCTCATTGCCCACCCTAAGCTTTTCCCCCAAGTTTTCAGTGCCAAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATAGTGCTGGCACTGGTGACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTATITATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTATITATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCCAGTCAGTGCTGCCACCCAGACCCTGGAAGGGGAACTCATCAGAAGTGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           889 CAGATCAACAGCAAGAGGTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCC
                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTACACCACCATCTCATGGGCATCTATGTGCTTGGGCTCAGCAGTGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGCGACAGGCAAGCATCCACTCCAATGTGGGCCAGGACTGATGAGGCCATGCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCCAGTCAGCCACCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAAC
                                                                                                                                                                                  1493;
                                                                                                                                                                                                               ..
0
                                                                                                                                                                                    Length
                                                                                                                                                                                 Score 1256.4; DB 9; Length
Pred. No. 4.2e-313;
0; Mismatches 1; Indels
                                                                                                                                                                                                            , 0
                                                                                                                                                                                 95.8%;
                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                            Matches 1257;
                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                          49
                                                                                                                                                                                                                                                                     57
                                                                                                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                                117
                                                                                                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                                                                                                           177
                                                                                                                                                                                                                                                                                                                                                                                                                         229
                                                                                                                                                                                                                                                                                                                                                                                                                                                      237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 829
                                                                                                                                                                                               Local
                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                              D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
S
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

PAT 01-SEP-2000

1306 1314 ô 108 123 168

Gaps

. 0

us-10-029-436-1.rge

g

ð 임 8

ద ò g ď

ò

ò

g

셤

 $\dot{\delta}$

엄

ò

g

ò

ઠે 셤 임 à a à g à g δ

ઠે

```
gene="GPR84"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 1535)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12477932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22388257
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1024 GIGACTCGAAIGTGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TICCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCGGGAGTTTCCATAGGCTCCAT 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCGGCCAAGCATATGGCTCCATTTTAAAAGAGGGCCCCGGGAGTTTCCATAGGCTCCAT 1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAG 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GIGACTCGAATGTGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            964 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGTCCGGATTCTTCATCGGAATTTGGGAAG 1023
                                                                                                                                                                                                                                                                                                                                       648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         963
                                          423
                                                                                    468
                                                                                                                            483
                                                                                                                                                                       528
                                                                                                                                                                                                               543
                                                                                                                                                                                                                                                       588
                                                                                                                                                                                                                                                                                               603
                                                                                                                                                                                                                                                                                                                                                                                  663
                                                                                                                                                                                                                                                                                                                                                                                                                       708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               829 GAGCCAGTCAGTGCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGAC 888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  364 GGGCTCCTTCTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
                                                                                                                                                                                                                                                                                                                                                                  CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCCAGCAGTGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                           664 TICTATIGCCTCATCCACGGCCAGGTCAACGAGCAGCACCAGGACCACTGGACCAATACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGATCAACAGCAAGAGGGTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   904 CAGATCAACAGCAAGAGCTAAGCAGAAGCGAGAAAAGCCCTCCAGAAGCATCTGCC
                                                                                      409 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGG
                                                                                                                 424 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGG
                                                                                                                                                                                                             484 ATAGTGCTGGCACTGGACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
                                                                                                                                                                                                                                                       CCTATITATATACCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                             544 CCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                         CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGGCTCAGCAGTGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                          TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    724 Traccanchagenacentecactecandengracecadascrantareascentacerace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCCAGTGAGGGGATTTCATCT
                                                                                                                                                                       ATAGIGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1144
                                                                                                                                                                       469
                                                                                                                                                                                                                                                                                                                                         589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               492
                                                                                                                                                                                                                                                         529
                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                            649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 4
BC020614
LOCUS
DEFINITION
```

Homo sapiens G protein-coupled receptor 84, mRNA (cDNA clone MGC:22224 IMAGE:4279185), complete cds.

BC020614
BC020614.1 GI:18089044

ACCESSION VERSION KEYWORDS

EMERYORATES (INDIRELY)
HOMEO sapless (Indirely)
HOMEO sapless (Indirely)
HOMEO sapless
EMERYORATE (Hordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homeo

I (bases I to 1335)
Straubberg, R. L., Feingold, E. A., Grouse, L. H., Derge, J. G.,
Altschil, S. L., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N. K.,
Altschil, S. R., Zoddan, H., Moore, T., Max, S. L., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G. M., Hong, L.,
Stapleton, M., Soares, M. B., Bonaldo, M. F., Casavant, T. L.,
Scheetz, T. E., Brownstein, M. J., Usdin, T. B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S. S., Loquellano, N. A., Peters, G. J.,
Morlay, K. C., Hale, S., Garcia, A.M., Gay, L. J., Hulyk, S.W.,
Villalon, D. K., Malek, J. A., Gungarane, P. J., Hulyk, S.W.,
Villalon, D. K., Malek, J. A., Garcia, A.M., Gay, L. J., Hulyk, S.W.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Bouffard, G.C., Blakesley, R.W., Touchman, J. W., Green, E.D.,
Dickson, M. C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Saalska, U., Smallus, D. E.,
Generation and mouse oDNA sequences
H.D. Proc. Natl. Acad. Sci. U.S.A., 99 (26), 16899-16903 (2002) WIN-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue courement: ATCC
CONA Library Preparation: CLONTECH Laboratories, Inc.
CONA Library Arrayed by: The I.M.A.G.E. Consortium (Linkl.)
CONA Sequencing by: sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site:
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers,
R. M. /codom start=1 /product="inflammation-related G protein-coupled receptor EX33" Clone distribution: MGC clone distribution information can be four through the I.M.A.G.E. Consortium/LiNL at: http://image.llnl.gov Series: IRAL Plate: 35 Row: k Column: 17 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: .9966838. Strausberg, R. Direct Submission Submitted (Uni-2002) National Institutes of Health, Mammalian Submitted (Uni-3-JAM-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, 1. 1535 /organism="Homo sapiens" /organism="Homo sapiens" /db xref="taxon:9606" /clone="MGC:2224 IMAGE:4279185" /clone='Upg="Brain, primitive neuroectodermal" /clone Ib="NHH MGC 56" /lab host="DilOB" /note="Vector: pDNR-LIB" /note="synonyms: EX33, GE /db_xref="LocusID:53831" /db_xref="MIM:606383" /protein_id="AAH20614.1" CDS

```
1008
                                                                                                                                                                                                                                                                                                                                                 1128
                                                                                                                                                                                                                                                                                                                                                                                      1168
                                                                                                                                                                                                                                                                                                                                                                                                                         1188
                                                                                                                                                                                                                         989 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1048
                                                                                                                                                                                                                                                                                                            1108
                                                                                                                                                                                                                                                                           1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1169 AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCAT 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1229 Troceccaaecararescrocarritaaaaaesescoceeserrocaraescrocar 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT 26-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              o
.
                                                                                                                              948
                                                                                                                                                              988
                   868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
Memo sapiens
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CIGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGTGTGACAGGCACCGTG
GAGCCAGTCAGTGCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAAC
                                                                                                                                                                AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGGAAG
                                                                                                                                                                                                                                                                           1009 GTGACTCGAATGTGTTTTGCTGTGTTTCCTCTGTGTTTGCCCTGAGCTACATCCCCTTCTTG
                                                                                                                                                                                                                                                                                                                                                   AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGATCAACAGCAAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCC
                                                                                                                                                                                                                                                                                                                GTGACTCGAAIGTGTTTTGCTGTGTTTCCTCTGCTTTTGCCCTGAGCTACATCCCCTTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Burmer,G.C., Roush,C.L. and Brown,J.P.
Antigenic peptides, such as for G protein-coupled receptors (GPCRs), antibodies thereto, and systems for identifying such antigenic peptides
Patent: NO 02061087-A 584 08-AUG-2002;
Lifespan Biosciences, Inc. (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1256.4; DB 6;
Pred. No. 4.2e-313;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 584 from Patent WO02061087.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AX549299.1 GI:25813960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 99.99
Matches 1257; Conservative
                       809
                                                        829
                                                                                             698
                                                                                                                               889
                                                                                                                                                                                                                                                                                                                1049
                                                                                                                                                                                                                                                                                                                                                                                      1109
                                                                                                                                                                                                                                                                                                                                                                                                                           1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1189
                                                                                                                                                                                                       949
                                                                                                                                                                                                                                                                                                                                                     1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
AX549299
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                      ઠે
                                                                                       g
                                                                                                                              ò
                                                                                                                                                           В
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                    LAIQPELETERPULIANITABLELYCTLLOPPSVDTYLHLHWRTGATFCRVFGLLLFA
SNSVSILTLCLIALGARYLLIAHENEPOVESAGIVLALVSWWVGYASAPAUWNYY
LVPVVCTCSPDRIAGRYLLIAHENEPOVESAGIVLALVSWWYGYASAQALDOYKLI
QASIHSNHVARTDEAMPGRFQELDSRLASGGPSGISSEPVSAATTQTLEGDSSEVGD
QINSKRAKQWAEKSPPEASARAQPIKCARRAPDSSSEPGKVTRMCFAVPLCFALSYIP
PLLLINILDARVQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSILKRGPRSF
HRLH.
                       /db_xref="LocusID:53831"
/translation="MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLA
                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                    323. .742
/note="7tm_1; Region: 7 transmembrane receptor (rhodopsin
family)"
                                                                                                                                                                                                                   /db_xref="CDD:pfam00001"
1010. .1210
/note="7tm_1; Region: 7 transmembrane receptor (rhodopsin family)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       468
                                                                                                                                                                                                                                                                                                                                                                                                                                            TIAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAAC 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               769 CGTTTCCAGGAGCTGGACAGCAGCATAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGCTATCGTTATGTTAGCTGGGGGGTGGTGGTGGTGTGACAGGCACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTGTGGACACCTACCTCCACCTGCACCGCGCACCCGCTCCTTCTGCAGGGTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCTCCTCCTTTTTGCTCCTCCAATTCTGTCTCCCAATCCTGACCCTCTGCCTCATCGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTATITATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTACACCCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tretatriscercatecacedecagoreaaceageacacaceacaceacaaracaas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACGCTACCTCCATTGCCCACCTAAGCTTTTCCCCAAGTTTCAGTGCCAAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u> ATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGGCGTGGCCCAGCTTTGCTCCCCTCTGG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTGTGGACACCTACCTCCACCTGCACTTGGCGCACCGGTGCCACCTTCTGCAGGGTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                    95.8%; Score 1256.4; DB 9; Length 1535;
99.9%; Pred. No. 4.2e-313;
iive 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                  /db_xref="CDD:pfam00001"
   xref="GI:18089045"
                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 99.9'
Matches 1257; Conservative
                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          749
                                                                                                                                                                                                                                                                                                                                   ORIGIN
```

d

ò

임

ò

Op

 δ g 8

8

g

d

ò d à

ò

ò g ò DP ठ q ò g δ DЪ

```
TCTGTGGACACCTACCTCCACCTGCACTGCCCCCCGTGCCACCTTCTGCAGGGTATTT 348
1279 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95.8%; Score 1256.4; DB 9
ilarity 99.9%; Pred. No. 4.2e-313;
Conservative 0; Mismatches 1;
                                                                  TRNA G Dr
                                                                       1546 bp
Homo sapiens inflammation-related
(EX33) mRNA, complete cds.
AFARAGA
                                                                                                                                                                                                                                                                                                                                                                 1. .1546
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
1. _1546
                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                             GI:9652260
                                                                                                                                                                                                                                                                                                                                                                                                                                gene="EX33"
                                                                                                                                                    Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                             AF282693.1
                                                                                                                 AF282693
                                                                                                                                                                                                                                                                                11404393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simil
Matches 1257; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                         DEFINITION
                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                   RESULT 6
AF282693
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GIGACTCGAATGTGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGTCCCGGATTCTTCATCGGAATTTGGGAAG 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rrcceccaagcararegcrccarrrraaaaagagcccccggagrrrccaraggcrccar 1278
                                                                                                                                                                                                                                                                                                                                                         648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             948
     228
                             258
                                                     288
                                                                             318
                                                                                                      348
                                                                                                                             378
                                                                                                                                                      408
                                                                                                                                                                               438
                                                                                                                                                                                                       468
                                                                                                                                                                                                                               498
                                                                                                                                                                                                                                                        528
                                                                                                                                                                                                                                                                                558
                                                                                                                                                                                                                                                                                                        588
                                                                                                                                                                                                                                                                                                                                 618
                                                                                                                                                                                                                                                                                                                                                                                678
                                                                                                                                                                                                                                                                                                                                                                                                         708
                                                                                                                                                                                                                                                                                                                                                                                                                                 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                          768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
                                                                                                                                                                    GGGCTCCTTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCTCATCGCACTG
                                                                                                                                                                                                                                                                                                                       CCTATITATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                       CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                             TICIATIGCCICATCCACGCCAGGICAAACGAGCAGCACAAGGACCAATACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCCACTCAGTGCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCAT
                                                                  CIGCICATAGCCAACCICACACTGGATCICCICIACTGCACGCTCCTTCACCCTTC
                                                                                                                           GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTTGCCTCATCGCACTG
                                                                                                                                                                                                                           GGACGCTACCTCCTCATTGCCCACCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGG
                                                                                                                                                                                                                                                                               CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                         TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cerrrecaggagergacagerragearcaggaggacccagraaggarrrcarer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCCAGTCAGTGCTGCCACCACCCAGACCCTGGAAGGGGGACTCATCAGAAGTGGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAAAAGCCCTCCAGAAGCATCTGCC
      gecaatetecceracieecerreecearceaececaaecreegraceearreaae
                  GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGAATCAAC
                                                                                                      TCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTT
                                                                                                                                                                                                        GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGG
                                                                                                                                                                                                                                                       ATAGTGCTGCCACTGGTGACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
                                                                                                                                                                                                                                                                                                         CCTATITATATTCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Treceacadecarccacrecarccargreeccagacreargageccarger
                                                                              259
                                                                                                                                                                               379
                                                                                                                                                                                                                                                                                499
                                                                                                                                                                                                                                                                                                                                 559
                                                                                                                                                                                                                                                                                                                                                                                                                                  619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1249
                                                                                                                                                                                                                                439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1099
                                                     229
                                                                                                      289
                                                                                                                                                       349
                                                                                                                                                                                                        409
                                                                                                                                                                                                                                                          469
                                                                                                                                                                                                                                                                                                         529
                                                                                                                                                                                                                                                                                                                                                         589
                                                                                                                                                                                                                                                                                                                                                                                 619
                                                                                                                                                                                                                                                                                                                                                                                                          649
                                                                                                                                                                                                                                                                                                                                                                                                                                                            709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1129
                             199
                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                         g
                                                                                                                         셤
                                                                                                                                                    ò
                                                                                                                                                                          g
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                             Dp
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                      g
                                              õ
                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

/protein_id="AAF91467.1"

/db_xref="G1:9652261"

/trānslation="MMNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLA
LAQPCKLRTFRENLIANLITLADLLYCTLQPFSVDTVHLHHRRGATFCRYGELLEA
SNSVSILTLCLIALGRYVALLIAHPKLEPQVFSAKGTVLANCSTWVVGVASFAPLNTIT
LVPVVCTGSFDRIRGRPYTTLIMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLR
QASIHSNHYVARTDBAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSRYGD
QINSKRAKQMAEKSPPEASSAKAQPIKGARRAPDSSSSEFGKVTRMCFAVFLCFALSYIF
FLLLNILDARVQAPRVVHMLAANLITMLNGCINPVLYAAMNRQFRQAYGSILKRGPRSF
HRLH" nRNA linear PRI 23-SEP-2002 protein-coupled receptor EX33 ö 138 168 198 91. .1281 /gene="sxx3" /codon_stxx1=1 /product="inflammation-related G protein-coupled receptor 199 GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC 258 1336 Bukaryoffa, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi; Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 1546)

Yousefi,S., Cooper,P.R., Potter,S.L., Mueck,B. and Jarai,G. Cloning and expression analysis of a novel G-protein-coupled receptor selectively expressed on granulocytes
J. Leukoc. Biol. 69 (6), 1045-1052 (2001) TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG CTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTG 139 creescrarcerrargraecastrascreeseseseseseseseseseseseseseses GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCGATTCAAC CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC 259 crecicaraccacaccicacacrescresicacicacicacicacececercente Gaps 2 (bases 1 to 1546)
Yousefi,S., Cooper,P., Mueck,B., Potter,S. and Jarai,G.
Direct Submission
Submitted (26-JUN-2000) NHRC, Wimblehurst, Horsham, West
RHIS 5AB, UK Length 1546; ô 1; Indels

. .

Db 788 TTGCGACAGGCA		
Qy 709 TTGCGACAGGCA	1279 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCGAGGACCAAGTGGC 1336	ΩÞ
Db 728 TTCTATTGCCTC	1249 TAGAACTGTGACCCTAGTCACAGAATTCAGGACTGTCTCCTCCACGACGAAGTGGC 1306	ò
Qy 649 TICTATIGCCTC	1219 TTCCGCCAAGCATATGGCTCCATTTTAAAAGGGGCCCCGGAGTTTCCATAGGCTCCAT 1278	qα
Db 668 CCTTACACCACC	1189 TTCCGCCAAGCATATGCCTCCATTTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCAT 1248	δ
589	AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA	ξ q _o
Oy 529 CCIAITTAIAIC	1099 CIGCICAACAITCIGGAIGCCAGAGICCCAGGCTCCCCGGGTGGTCCACAIGCITGCIGCC 1158	ବୁ ଧ
Db 548 ATACTGCTG	1069 CIGCICAACATICIGGAIGCCAGAGICCAGGCICCCCGGGIGGICCACAIGCITGCIGCC 1128	ò
Qy 469 ATAGTGGCA	1039 GIGACTCGAAIGTGTTTTGCTGTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG 1098	ΩÞ
Db 488 GGACGCTACCTC	1009 GIGACTCGAAIGIGITITGCIGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCTTCTTG 1068	ò
Qy 409 GGACGCTACCTC	979 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1038	qo
Db 428 GGGCTCCTCTT	949 AAAGCCCAACCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1008	ò
QY 349 GGGCTCCTCTT	919 CAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCC 978	qq
Db 368 TCTGTGGACACC	889 CAGATCAACAGCAAGAAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCC 948	δ
289	859 GAGCCAGTCAGTGCTGCCACCCAGCACCCTGGAAGGGAACTCATCAGAAGTGGGGAAC 918	3 名
OY 229 CTGCTCATAGCC	CGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT	qq
Db 248 GGCAATGTGCTC	769 CGITICCAGGAGCIGGACAGCAGGTIAGCAICAGGAGGACCCAGIGAGGGGAITICAICI 828	ζŎ
Qy 169 GGCAATGTGCTC	739 TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT 798	ব্ব
Db 188 CTGGGCTATCGT	709 TTGCGACAGGCAACCATCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT 768	Qy
Qy 109 CTGGGCTATCGT	679 ITCTATTGCCTCATCCACGCCAGGTCAAACGAGCAGCAGCACAGGCACTGGACCAATACAAG 738	QQ
	649 TICTATTGCCTCATCCACGGCCAGGTCAAACGAGCAGCAGGCACTGGACCAATACAAG 708	Qy
OY 49 TIAGCCTCTATC	CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTGTGT	<u>5</u> 6
Query Match Best Local Similarity Marches 1257: Conservat	559 CCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACGCATCCGAGGCCGG 618 589 CCTATTCACCACCATCCTCTATTAGAGATTTACTGCTTTAGAGATTTAGAGATTAGAGATTAGA	д <u></u>
ORIGIN	529 CCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG 588	ò
source T orga /orga mil	499 ATAGTECTEGEARTISTICATE CONTROLLE CANCELLE CONTROLLE	à A
JOURNAL Patent: WO 016 FEATURES Locat		qa
KEFEKENCE 1 AUTHORS Jarai,G., Coop TITTE Inflammation-r	409 GGACGCTACCTCCTCATTGCCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGG 468	Qy
Euka Mamme	379 GGGCTCCTCTTTTGCCTCCATTCTGTCTCCCACCCTCTGCCTCATCGCACTG 438	7 원
KEYWORDS SOURCE Homo sapiens (ICTGTGGACACCTACCTCCACCTGCACTGGCGCACCGTGCCACCTTCTGCAGGGTATTT 37	ପ୍ତ
VERSION AX247564.1 GI		ć

linear PAT 28-SEP-2001

DNA

AX247564 1 from Patent W00166597. AX247564

RESULT 7
AX247564
LOCUS
DEFINITION
ACCESSION

```
Best Local Similarity 100.
Matches 1191; Conservative
                                                                                    121
                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                            Н
                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                            61
                                                                                                                                     181
                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                       g
                                                                                                                                                       g
                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                        С
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                   à
                                                                                                                                   ò
                                                                                                                                                                                 8
                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                 \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                               N BD144298.1 G1:27850056

UP 2002112793-A/23.

Homo sapiens (human)

SM Homo sapiens (human)

SM Homo sapiens (human)

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E 1 (bases it on 1191)

S Haga, T., Takeda, S. and Miyake, N.

Novel G-protein coupled receptors

L Patent: UP 2002112793-A 23 16-APR-2002;

JAPAN SCIENCE AND TECHNOLOGY CORP

OS Homo sapiens (human)

PN UP 2002112793-A/23
                                                                                                                                                                                                                                                1188
                                                                                                1008
                                                                                                                                                1068
                                                                                                                                                                        1147
                                                                                                                                                                                                 1128
                                                                         1027
                                                                                                                        1087
                                                                                                                                                                                                                        1207
                                                                                                                                                                                                                                                                      AACCICACCIGGCICAAIGGIIGCAICAACCCIGIGCICIAIGCAGCCAIGAACCGCCAA 1267
                                                                                                                                                                                                                                                                                               TTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCAT 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C12N1/21, C12Q1/02,C12Q1/68,G01N33/15,G01N33/50,G01N33/53, PC
                                                                                                                                                                                                                                                                                                                      1268 TTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCAT 1327
                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT 17-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OS HOMO Sapiens (human)
PN JP 2002112793-A/23
PD 16-APR-2002
PD 9-FEB-2001 JP 2001034434
PI TATSUTA HAGA, SHIGEKI TAKEDA, NARIKI MIYAKE
PC 12N15/09, A01K67/027, A61K38/00, A61K39/395, A61K45/00, PC
 888
                        967
                                                 948
                                                                                                                                                                                                                                                                                                                                              1249 TAGAACTGTGACCCTAGTCACCGGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
1328 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1385
              GAGCCAGTGAGCACCACCAGAACCCTGGAAGGGAACTCATCAGAAGTGGAACA
                                                                  968 CAGATCAACAGCAAGAGGTAAGCAGATGGCAGAAAAAAGCCCTCCAGAAGCATCTGCC
                                                                                                              1028 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG
                                                                                                                                                               GTGACTCGAATGTGTTTTGCTGTGTTTCCTCTGTTTGCCCTGAGGTACATCCCCTTCTTG
                                                                                                                                                                                               CIGCICAACATICTGGAIGCCAGAGICCAGGCTCCCCGGGTGGTCCACATGCTTGCTGCC
 GAGCCAGTCAGTGCTGCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGAC
                                                CAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCC
                                                                                                AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG
                                                                                                                                               1009 GIGACICGAAIGIGITITGCIGITICCICICCICTITGCCCTGAGCIACAICCCCTITG
                                                                                                                                                                                                                                              AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1191;
                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C12P21/08,C12N15/00,A61K37/02,C12N5/00
Novel G-protein coupled receptors
Key
Location/Qualiflers
CDS
(1) (1191)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 9
                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (1) . (1191).
Location/Qualifiers
1. .1191
                                                                                                                                                                                                                                                                                                                                                                                                                                   BD144298 1191 bp
Novel G-protein coupled receptors.
BD144298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1191;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PC C12P2/10
G01N33/566//
PC C12P21/0
CC Novel G-
FH Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A61K48/00
PC A61P4
                        806
                                                688
                                                                                                949
                                                                                                                                                                       1088
                                                                                                                                                                                                                       1148
                                                                                                                                                                                                                                              1129
                                                                                                                                                                                                                                                                       1208
                                                                                                                                                                                                                                                                                                1189
 829
                                                                                                                                                                                               1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
BD144298
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
CETWOEDS
SOUNCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                d
                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                     g
                   g
                                              ò
                                                                  엄
                                                                                           ò
                                                                                                                 g
                                                                                                                                         ò
                                                                                                                                                                                              \dot{\delta}
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                               à
```

```
ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                        120
                                                                                                                                                                    180
                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                               121 Acceracitedecerredecearceadecreegracedarreaacergerearadec 180
                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITGCCTCCAATICTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 CTCATTGCCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841 AAGAGACTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 900
                                                                                                                      9
                                                                                                                                                                       TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                          CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTGTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTAAAGGAGCCAGAAGAGGTCCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                                                 ACCTACTEGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                   AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACCICCACCIGCACIGGCGCACCGGTGCCACCTICIGCAGGGTAITIGGGCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACCTCCACCTGCACTGCCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITGCCICCAATICIGICICCATCCIGACCCICTGCCICATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         credicaccaccidedrifusedecoreccaccinicoreccerentescentratare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541 Arcercardescareraerrigiscriessereascasisriescarericiarriscere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601 Arccacceccagercaaaceaecaecaecaecacreeaccaaracaaerrecaacaeca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTGCCACCACCAGACCCTGGAAGGGGACTCAGAAGTGGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                        ATGIGGAACAGCICIGACGCCAACTICICCIGCTACCAIGAGICTGIGCTGGGCTAICGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                            Gaps
                         0
                            Indels
100.0%; Pred. No. 2.5e-296; ive 0; Mismatches 0;
```

us-10-029-436-1.rge

181 ACCCTACTGGCCATCCAGCCCAAGCTCCGATCAACCTGCTCATAGCC 240	361 TTTGCCTCCAATTCTGCTCCAATCCTGACCTCTCGCCTCATCGCACTGGGACGCTACCTC 42 301 TTTGCCTCCAATTCTGTTCTGTCCTCCATCCTGCCTCATCGCACTGGGACGCTACCTC 36 421 CTCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGCCA 48 361 CTCATTGCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGCCA 48 481 CTGGTGAGCCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGCCA 42 481 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAAGTTTTATATC 54 421 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 54 421 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 54	541 CTGGTACCTGTAGTCTGCAGCTTTGACGCATCCGAGGCCGGCC	661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGCCATGCCTGGTCGTTTTCCAGGAGGTAGCCTGGTCGTTTTCCAGGAGGTAGCCTGGTCGTTTCCAGGAGGTAGCCAGGAGGTAGCCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG	20 ATTANAGANGACTCCGGATTCTTCATCGGAAGTTGGGAAGGTGATCGAATG 20 ATTANAGGAGCCAGAAGACTCCGGATTCTTCATCGGAAGTTGGGAAGGTGATCGAATG 20 ATTANAGGAGCCAGAAGACTCCGGATTCTTCATCGGAAGTTGCTGCTGCTCGAATG 20 ATTANAGGAGCCCGGATTCTTCATCGGAATTTGGCAAGGTGATCGAATG 20 ATTANAGGAGCCCGGATTCCCCGGGTAATTTGGCAAGTTCGCTGATCATTGCTGCTCAATGTTGCTGCTCAAAGTTTGCTGTTGCTGCTCAAAGTTTGCTGTTGCTGCTCAAAGTTTGCTGTTGCTGCTCAACTTTGCTGCTGCTCAAATTTTTTTT
Db 1021 CTGGATGCCAGAGTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG 1080 Qy 1141 CTCAATGGTTGCATCAACCCTGTGCTGTGAGCCATGATCCGCCAATTCCGCCAAGCA 1200 L081 CTCAATGGTTGCATCACCTGTGCTCTATGAGCCCATGAACCGCAATTCCGCCAAGCA 1140 Db 1201 TATGGCTGCATTATAAAAAGAGGCCCCGAGTTTCCATAGGCTCCATTAG 1251	RESULT 9 AB083586 LOCUS AB083586 AB083586 AB083586 AB083586 ACCESSION AB083586.1 G1:20152235 KYWORDS BOUNCE Homo sapiens (human) ONGANISM AMMEDIA: Butheria: Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia: Butheria: Primates; Catarrhini; Hominidae; Homo.	AUTHORS Takeda,S., Kadowaki,S., Haga,T., Takaesu,H. and Mitaku,S. AUTHORS Identification of G protein-coupled receptor genes from the human JOURNAL Unbublished C (abses 1 to 1191) AUTHORS Takeda,S., Kadowaki,S., Haga,T., Takaesu,H. and Mitaku,S. TITLE Direct Submission JOURNAL Department of Biological and Chemical, Engineering, Paculty of Engineering, 1-5-1, Kiryu, Gunma 376-8515, Japan (E-mail:stakedadace.gunma-u.ac.jp, Tel:+81-277-30-1434, Fax:+81-277-30-1434)	FEATURES Location/Qualifiers 1. 1191 /mol_type="genomic DNA" /mol_type="genomic DNA" /mol_type="genomic DNA" /don=="GPCR" 1. 1191 /gene="GPCR" /gen	INTO PARTICULAR TRAILLIANLITHAD LYCTLLOPES TO THE THAT THAT THAT THAT THAT THAT THAT

REFERENCE AUTHORS

TITLE JOURNAL REFERENCE AUTHORS

TITLE JOURNAL

COMMENT

```
185348: Gentig of 1859.

186348: Gap of unknown length 190531: contig of 5183 bp in length 196011: gap of unknown length 196011: gap of unknown length 196021: gap of unknown length 200348: gap of unknown length 202595: gap of unknown length 202595: gap of unknown length 204541: contig of 1048 bp in length 204541: contig of 878 bp in length 204541: contig of 1878 bp in length 204541: contig of 25 bp in length 204561: gap of unknown length 204836: gap of unknown length 204836: gap of unknown length 204836: gap of unknown length 20558: contig of 73 bp in length 20558: contig of 2029 bp in length 20558: contig of 2029 bp in length 20558: gap of unknown length 20558: contig of 2029 bp in length 20578: gap of unknown length 205197: contig of 224 bp in length 207177: contig of 224 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anote = assembly_name: contigon

Anote = assembly_name: contigons

Anote = assembly_name: contigons

108513. 120232

Anote = assembly_name: contigons

120253. 121080

Anote = assembly_name: contigons

131101. 14280

Anote = assembly_name: contigons

142710. 155401

155502. 164014

Anote = assembly_name: contigons

155502. 164014

Anote = assembly_name: contigons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "note="assembly name:Contig73"

100369...202575-

"note="assembly name:Contig72"

1002596...203643-

"note="assembly name:Contig71"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="assembly_name:Contig87"
8325. .68273
note="assembly_name:Contig86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nnote="assembly_name:Contig79"
[64035...171335_
"fnote="assembly_name:Contig78"].one_and.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="assembly_name:Contig70"
04562. .204816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85349. .190531
/note="assembly_name:Contig75"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90552. .196001
note="assembly_name:Contig74"
96022. .200348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_name:Contig76"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="assembly_name:Contig69"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="assembly_name:Contig7779443. .185328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .207421
/organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="genomic_DNA"
/strain="C57BL6/J"
/db_xref="taxon:10090"
/chromosome="15"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone="RP23-169K7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone_end:SP6 '_
vector_side:right"
171356 .179422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /sex="male"
1. .38304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         206979
207178
207198
                                                                                                                                                                      96022
                                                                                                                                                                                                                    200369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                ACO21643 207421 bp DNA linear HTG 15-MAY-2002 Wus musculus chromosome 15 clone RP23-169K7 strain C57BL6/J, WORKING DRAFT SEQUENCE, 23 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                 2 (bases 1 to 207421)
Grills,G., Han,J., Montgomery,K.T., Lee,B., Long,J., Pomerantz,R.,
Ioshikhes,I.P., Shim,C., Decker,J., Thomas,B., Perera,A., Gordon,M.
and Kucherlapati,R.
                                                                                                                                                                                                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mamallai, Eutheria; Rodentia; Sciurognathi, Muridae, Murinae, Mus. (bases 1 to 207421)
Grills, G., Han, J., Montgomery, K.T., Lee, E., Long, J., Pomerantz, R., Indhikhes, L.P., Shim, C., Decker, J., Thomas, E., Perera, A., Gordon, M. High, Throughput Mouse Sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (19-JAM-2000) Department of Molecular Genetics, Albert Einstein College of Medicine Genome Center, 1300 Morris Park Ave., Bronx, NY 10461, USA on Aug 9, 2001 this sequence version replaced gi:14717145.

Center: Harvard Partners Genome Center Center Code: HPGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Quality coverage: agarose-FP - N/A Quality coverage: 6.5 x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOTE: This is a 'working draft' sequence. It currently consists of 23 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N. but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of 38304 bp in length contig of 29349 bp in length gap of unknown length ago to contig of 20716 bp in length contig of 20716 bp in length gap of unknown length length gap of unknown length length of 19463 bp in length contig of 19463 bp in length contig of 10828 bp in length contig of 10828 bp in length gap of unknown length contig of 11589 bp in length contig of 11589 bp in length contig of 12772 bp in length contig of 18513 bp in length gap of unknown length contig of 8513 bp in length contig of 8513 bp in length gap of unknown length gap of unknown length contig of 8513 bp in length gap of unknown length gap of unknown length gap of unknown length gap of unknown length sigap of unknown length contig of 8067 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site: http://www.hpcgg.org/Sequence/mouse.html
Contact: hpgc@mendel.mgh.harvard.edu
------Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequencing vector: pUC18; L08752
Chemistry: Dye-terminator Big Dye; 1008
*Consensus quality: 193187 at least Q20
*Consensus quality: 190826 at least Q30
*Consensus quality: 186718 at least Q40
Estimated insert size: agarose-FP - N/A
**Estimated insert size: 206981 - sum-of-contigs
                                                                                                                                       AC021643.12 GI:15143422
HTG: HTGS PHASE1; HTGS DRAFT.
Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108492: 0
108512: 0
120232: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            142689: 0
142709: 9
155481: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         171335: 0
171355: 0
179422: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89009:
89029:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center project name:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  38304:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68293:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             164014:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    164034:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20252:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155501:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131080:
                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68294
89010
89030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38305
38325
68274
                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
RESULT 10
AC021643
LOCUS
DEFINITION
```

AAAAGAGGCCCGGAGTTTC 1236 ||| | ||||| | ||||||| AAACGCGGGCCACAGAGTTTC 127267 ||||| | ||| | |||| \agagccacagargccccarca 127027 CTCTGCTTTGCCCTGAGCTAC 1056 AACCCTGTGCTCTATGCAGCC 1176 paescrecessegresres 1116 linear ROD 07-OCT-2003 4, mRNA (cDNA clone AGAGCTCCGGATTCTTCATCG 996 ertebrata; Euteleostomi; i; Muridae; Murinae; Mus. es of Health, Mammalian fice, National Cancer ethesda, MD 20892-2590, 899-16903 (2002) 50

```
1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1093 AGGIGACCGGTATGTGCTTCGCAGTGTTCCTCTGCTTCGCCTCAGCTACATCCCCTTCC 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                886
                                                                                                                                                                                                                      346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           913 CTGAGCCAGTCAGTGCTGCGACCACGCAGGCCCTGGAAGGTGATTCGTCCGAAGCTGGGG 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    887 ACCAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTG 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIGES TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGCGTGGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gecrecarcadeccadearcecrerearcaderecteseacacadaagecarecere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCACTTCCAGGAGCTAGAGAGGGGTTGCCTCAAGAGGGGCCCAGGGGGGGATTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGAGCCAGTCAGTGCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAGGGCATTAGAAAGGCAGCTCAACAGATCGCAGAGAAAAAGCCTTCCAGAAGTGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gcaagecccceggaaacrgcaggaggcrcccagaggccacagargccccarcagagrccgga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGIGACTCGAATGTGTTTTGCTGTTCCTCTGCCTTTGCCCTGAGCTACATCCCCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTGCTCATTGCCAACCTCACCCTGGCTGATCTACTCTACTGCACGCTCCTGCAGCCTT
                                                                                                                                                                                                                                                                                                   rerecerecacacacacerecarecarresearacesesesesesererasaarar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAGGACGCTACCTCCTCATTGCCCACCCTAAGCTCTTTCCCCAGGTTTTCAGTGCCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        de arcordera de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de consecue de co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 desarieritriererregreceserrererecedenecreceserrresedenecenecesede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    707 AGTTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      947 CCAAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rerrecreadarreredacecedagesecerecrecadagragrecadarderesers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Agrirroscoacscararoscrocarcorsaacscossocacasastrococossiroc
                                                  Accrecitataeccaaccitacactgecreatcrecitatactgececritaegcecr
                                                                                                                                                                                                                      TCTCTGTGGACACCTACCTCCACCTGCCGCACCGGTGCCACCTTCTGCAGGGTAT
                                                                                                                                                                                                                                                                                                                                                                                          TTGGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATAGTGCTGGCACTTGGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTAGAACT 1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1333 ATTAAAGCT 1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1247
                                                                                                                                                                                                                                                                                                            373
                                                                                                                                                                                                                                                                                                                                                                                              347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    973
                                                      227
                                                                                                                                        313
                                                                                                                                                                                                                          287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             $ A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MMNSSDAN"SSCYHESVLGYRYFAVIWGVAVAVTGTVGNVLTLLA
LAIR PRILITERPILLIADLLYCTTLLOPFSVDTYJHLHWTGAVGVCRIFGILLET
SNSVSTITLCLIALGRYLLIADLYCSVTGLSRKGIVLALVGSWVVGTSFAPLWNVFV
LVPVVCTCSFDRWRGRPYTTILMGIYFVLGLSSVGVFYCLIHRQVKRAARALDQYGLH
OSIRGHQAGTQEAWFGHFQELDSGYASRGPSEGISSBFWSATTQTHEGDSSBAGG
QGIRKAAQQIABRESLPBVHKRETAQARRATDAPSFEGKVWRMCFAVFLCFLSYLSYIF
FLLINILDARGRARYVHWVAANLTWLNSCIINPVLYAAMNRQFRHAYGSILKRGPQSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 40 Row: o Colum:: 3
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 13507671.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               369. .818
/note="7tm_1; Region: 7 transmembrane receptor (rhodopsin
family)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        166
                                                                                                                               Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Contact: amg@bcm.tmc.edu
Annaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, H.,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor (rhodopsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGTGTGACAGGCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cercadretecareareredadesercadareceaaerrerecereceaecareagerere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rerresserrarcearactrirecastriarcresseses de consecuencia de casa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITIAGCCICIAICAIGIGGAACAGCICIGACGCCAACIICICCIGCIACCAIGAGICIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
cDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) MA Sequencing by: Baylor College of Medicine Human Genome Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=1
/product="G protein-coupled receptor 84"
/protein.id="AAH23249.1"
db_xref="G1:23273890"
/db_xref="G1:23273890"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _amin_y xref="CDD:pfam00001"

1032. .1256

_note="7tm_1; Region: 7 transmembrane family)"

_db_xref="CDD:pfam00001"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches 195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:10090"
/clone="MGC:30824_IMAGE:3995193"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 897; DB 10;
Pred. No. 2e-220;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="synonym: EX33"
/db_xref="LocusID:80910"
/db_xref="MGI:1934129"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Mus musculus"
/mol type="mRNA"
/strain="CZECH II"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="Gpr84"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68.4%;
ilarity 83.9%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
Matches 1014; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
```

. .

PP

ò

qq

ò

g

ò

483

466

543 526 603 586

Fri

```
964 GCCAGGGCATTAGAAAGGCAGCTCAACAGATCGCAGAGAGAAGCCTTCCAGAAGTGCATC
                                                    TIGGACTICATION TANGET OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOTAL OF THE TOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCTTACACCACCACCTCATGGGCATCTACTTTGTGTTTTGGGCTCAGCAGCGGGGGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTTCTATTGCCTCATCCACGCCAGGTCAAACGAGCAGCAGGCACTGGACCAATACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTTCTACTGCCTCATCCACCGGCAAGTGAAGCGTGCGGCTCGAGCACCAGGCACCAATACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     887 ACCAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1084 AGGIGACCCGTATGTGCTTCGCAGTGTTCCTCTGCTTCGCCTCAGCTACATCTCCCTTTCC
CTCCATCCTGACCCTCTGCCTCATCGCAC
                                                                                                                                TGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTCCCCCAAGTTTTCAGTGCCAAGG
                                                                                                                                                                       TAGGACGCTACCTCCTCATTGCCCACCTAAGCTCTTTCCCCAGGTTTTCAGTGCCAAGG
                                                                                                                                                                                                                                                                 GGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCT
                                                                                                                                                                                                                                                                                                 deaarorintrigicinidadecadricificiócacrificacciónicacciónicadece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GECCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              707 AGTTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             784 gecrecarcageccaecarcecricrearcagines escressadas de acrecaradas de construires de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir de construir 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCAGTGAGGGGATTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGAGCCAGTCAGTGCTGCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        creaeccaercaerecrecaeccaecaecereaaccreaaegrearrearcaeaaecreae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAAGCCCCAGCCAATTAAAGGAGCCCAGAAGGAGCTCCGGGATTCTTCATCGGAATTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAAGCCCCGGGAAACTGCAGGAGCTCGCAGAGCCACAGATGCCCCCATCAGAGTTCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGIGACTCGAATGIGITITIGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTAAAGCTAT 1334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTAGAACTGT 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1324
                                                                  424
                                                                                                                                                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1264
                                                                                                                                    407
                                                                                                                                                                                                                                                                 467
                                                                                                                                                                                                                                                                                                                                    544
                                                                                                                                                                                                                                                                                                                                                                                                  527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
AC126846
LOCUS
DOFINITION
ACCESSION
VERSION
KEYWORDS
                                                       g
                                                                                                                                8 8
                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /codon_start=1
/product="orrphan G protein-coupled receptor 84"
/product="orrphan G protein-coupled receptor 84"
/product="orrphan G protein-coupled receptor 84"
/product="orrphan G protein-coupled receptor 84"
/db xref="orr:1271475"
/translation="MMNSSDANFSCYHESVLGYRYFALIMGVAVAVTGTVGNVLTLLA
LAIRPEKTRIFFRATALIAALLIAYTHELMORTYFALHAIMGTVEANFORT FGLLEFT
SNSVSILTLCIALGRYLTIAHPKLFPQVPSARGTVLALNGSWVVGVTSAPALDQYGLH
QASIRSHQVAGTQEAMPGHFQBLDSGVASRGPSGTSEFVSAATTQTLEGDSGEAGG
QGIRKAAQQIABRSLPPVHKRPRETAGARRATDAPSGFGKVTRMCFAVFLCFALSYIP
FLILNILDARGRAPRVVHWVAANLTWINSCINPVLYAAMNRQFRHAYGSILKRGPQSF
RRFH"
                                                                     ROD 06-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            423
                                                                                                                                                                                                                                                                                                                                    Euteleostomi; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fuer
52, Hamburg 20246, Germany
                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mu (basea) to 1611) Schaller, H.C. and Hellebrand, S. An expressed sequence tag (EST) data mining strategy succeeding the discovery of new G-protein coupled receptors 0. 1779-813 (2001)
                                                                         Mus musculus orphan G protein-coupled receptor 84 (Gpr84) mRNA, AF272948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCTGCTACCATGAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cercágrerecarcardradadedecreadargecaderrerecraegaderere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rerresecrarcaracrirecaarrarcresecereseagisecreseagacases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTGCTCATTGCCAACCTCACCCTGGCTGATCTACTCTACTGCACGCTCCTGCAGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGTGGCTGTGACAGGCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rcrccircacaracaracaracaracaracaracacaracacacacacarararara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68.3%; Score 895.8; DB 10; Length 1611; 83.7%; Pred. No. 4.1e-220; cive 0; Mismatches 197; Indels 0;
                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vittenberger, T. and Hellebrand, S.
Direct Submission
Submitted (29-MAY-2000) ZMWH, Institut
Entwicklungsneurobiologie, Martinistr. !
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l. .1611
/organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'db_xref="taxon:10090"
                                                                                                                                                                                                                                                                     Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/strain="C57BL"
                                                                                                                                                                                                      AF272948.1 GI:12711474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                138. .1328
/gene="Gpr84"
/note="GPR84"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene="Gpr84"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 83.7
Matches 1014; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .1611
                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                     AF272948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11273702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          287
                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                     DEFINITION
   RESULT 12
AF272948
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
```

1066 1143 1126 1203

1023 1006 1083

946

886 963

766

843

826 903

646

663

706 783

723

1186 1263 1246 1323 linear HTG 03-OCT-2002 SEQUENCING IN PROGRESS ***. AATTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCGGGAGTTTCCATAGGCTCC CCAACCTCACCTGGCTCCAATGGTTGCATCAACCCTGTGCTGTTGCAGCCCATGAACCGCC CCAACCTCACCTGGCTCAACAGCTGCATCAACCCTGTGCTCCTATGCAGCCATGAACCGCC AC126846 24845 bp DNA 1 Rattus norvegicus clone CH230-11M7, *** SEQU AC126846 2 GI:22772739 HTG; HTGS_PHASE2; HTGS_DRAFT; HTGS_ENRICHED.

```
misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                             To tasses I to 244845)

To tasses I to 244845)

Tallen, C. Allen, H. Alabrooks, S. Amin, A. Angumano, D. Angual-bochi, V. Aoyagi, A. Ayodeji, M. Baca, E. Baden, H. Bandharanake, D. Bandaranake, B. Banthared, B. Bandhmed, F. Bandhar, V. Anyagi, A. Ayodeji, M. Paca, E. Baden, Benahmed, F. Bandhar, D. Bandaranake, D. Bandaranake, B. Bandhar, Brown, M. Bandaranake, D. Bandaran, K. Blayti, B. Brown, M. Carler, K. Cavazo, C. K. Blyth, P. Brown, M. Carler, K. Cavazo, D. K. Candara, V. Carter, K. Cavazo, D. K. Candara, V. Carter, K. Cavazo, D. K. Candara, D. Carter, K. Cavazo, D. Carter, K. Candara, D. Deramo, C. Ding, Y. Dinh, H. Divya, K. Daramo, C. Ding, Y. Dinh, H. Divya, K. Johan, M. Candara, C. Darago, L. Dinh, K. Dinh, K. Dinh, M. Divya, K. Johan, M. Candara, C. Darago, C. Ding, Y. Dinh, H. Divya, K. Foster, M. Gabisi, A. Garte, M. Garta, M. Garta, M. Garta, M. Garta, M. Garta, M. Hadun, S. Handerson, N. Harnandez, S. Finlys, M. Hadun, S. Handerson, N. Harnandez, M. Hadun, S. Hadun, S. Handerson, N. Harnandez, M. Hadun, S. Handerson, N. Harnandez, M. Hadun, S. Handerson, N. Harnandez, M. Hadun, S. Handerson, N. Mangum, M. Mangum, B. Gokeon, J. Jang, H. Wally, S. Kally, S. Kally, S. Kally, S. Kally, S. Kally, S. Marco, M. Mally, J. Leval, J. Lay, J. Liu, M. Liu, Y. London, P. Longan, M. Mallo, M. Mally, M. Mall, J. Marin, M. Mahmenhwari, M. Martine, E. Martine, E. Martine, E. Martine, E. Martine, E. Martine, J. Liu, W. Liu, Y. Liu, W. Liu, Y. Liu, W. Liu, Y. Liu, W. Liu, Y. Liu, W. Liu, W. Martine, M. Martine, M. Mandar, M. Martine, M. Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission

Submitted (10-UTL-2002) Human Genome Sequencing Center, Department Submitted (10-UTL-2002) Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Baylor Plaza, Houston, TX 77030, USA

Rat Genome Sequencing Consortium.

Biscor Submission

Lobinitted (03-OCT-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Sep 10, 2002 this sequence version replaced gi:21722958

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequening reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). As a result, the
                                                      Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae,
Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jnpublished
2 (bases 1 to 244845)
worley, K.C.
                                                                                                                                                       (bases 1 to 244845)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qudun
                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                    AUTHORS
                                                                                                                                                          REFERENCE
```

COMMENT

```
* NOTE: Estimated insert size may differ from sequence length

* (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

* NOTE: This is a 'working draft' sequence. It currently

* consists of I contiggs. Gaps between the contigs

* are represented as runs of N. The order of the pieces

* is believed to be correct as given, however the sizes

* of the gaps between them are based on estimates that have

* provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

* the location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              54744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                s4805 decrirdeccarecerecedaaereceaaeceerricaaecrecrecrearecaaecreae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54865 credericarcricracrecaecerecrecaecerecarinere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTTTTTGCCTCC 369
sequence may extend beyond the ends of the clone and there may be contigs that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.

Center: Baylor College of Medicine
Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                      Center project name: GDTA
Center clone name: GDTA-
Center clone name: CH230-11M7
Assembly program: Phrap; version 0.990329
Consensus quality: 222716 bases at least Q40
Consensus quality: 225022 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
Consensus quality: 226487 bases at least Q30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54626 AAGTICICAIAACAICICCCIC-ICCICCICCICCCIICAGICICCAICAIGIGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54745 drialcredecereceregracrecrecerecerecerecerecerecerecere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 AGGIICTGALICCCICTICCICTICCACCCTCTGCCTCTTTAGCCTCTAICATGTGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70 AGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGTTATGTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          54685 AGCTCAGATGACAACTTCTCCTGCTACCATGAGTCTGTATTGGGCTATCGATACTTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           130 GITAGCIGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTCACCTACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190 GOCTTGGCCATCCAAGCCCCAAGCTCCGATTCAACCTGCTCATAGCCAACCTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 244845;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 82.1%; Pred. No. 6.3e-219;
Matches 1037; Conservative 0; Mismatches 225; Indels
                                                                                                                                                                                                                                                                                         Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
------- Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
/clone="CH230-11M7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="wgs_contig"
1329. .2694
/note="wgs_contig"
239866. .241111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="wgs_contig"
243120. .244845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="wgs_contig"
```

VERSION KEYWORDS HTG; HTGS_PHASEO. SOURCE HOMO sapiens CLAATOTATA ORGANISM HOMO sapiens CLAATOTATA ORGANISM HOMO sapiens CLAATOTA ORGANISM HOMO sapiens Theren, B. Linton, L., Nusbaum, C. and Lander, E. JOURNAL TITLE HOMO sapiens, Clone RP11-1009 JOURNAL TITLE THOMO SAPIENS TO A CASES I to 141003 SEPERENCE THE HOMO SAPIENS TO A CASES I TO 141003 SEPERENCE THE HOMO SAPIENS TO A CASES I TO 141003 SEPERENCE SEPERENCE SEPERENCE AUTHORS BITCON, B. Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., BATHORS BATOMA, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castle, A., Collangelo, M., Collins, S., Collymore, A., COOKE, P., DeArellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M.,	W., Forrest, C., Funke, R., Gage, D., Garaft, G., Hagoss, B., Heaford, A., R., Jones, C., Hackord, A., R., Jones, C., Kann, L., Karatas, A., Locke, K., Macdonald, P., Marquis, N. Mckernan, C. H., O'Connor, T., O'Donne, J., N., Subrow, T., O'Donne, J., N., Subrow, R., Santos, R., Sa	Center: Whitehead institute/ MiT Center for Genome Kesearch Web site: http://www-seq.wi.mit.edu Contact: sequence_submissions@genome.wi.mit.edu	* the precord is updated, the accession number will * be preserved. * 665 contig of 865 bp in length * 1866 1849: gap of 100 bp * 1850 1949: gap of 100 bp * 2557 3860: contig of 904 bp in length * 2557 3860: contig of 904 bp in length * 3861 3960: gap of 100 bp * 4925 5792: contig of 864 bp in length * 4925 5792: contig of 868 bp in length * 5793 6793: contig of 868 bp in length * 5893 6793: contig of 904 bp in length * 5893 6793: contig of 897 bp in length * 6794 6893: gap of 100 bp * 6894 7790: contig of 897 bp in length * 7791 7890: gap of 100 bp * 8853 9726: contig of 862 bp in length * 7891 8752: contig of 862 bp in length * 8853 9726: contig of 864 bp in length * 8853 9726: contig of 867 bp in length * 8853 9726: contig of 867 bp in length * 8853 9726: contig of 867 bp in length * 8853 9726: contig of 909 bp in length
54925 CTCCATTGGCGCACCGGGCCATCTTGTGAAATATTGGACTCCTCTTTACTTCC 370 AATTCTGTCCTCCTCTCTCTCTCTCTCTCTCTGGACTCCTCCTCTTTACTTCC 54985 AATTCTGTTCTCCATTCTTTTCTCTGTTCTCTTTTTTTTT	550 GTAGTTGCA-CCTGCAGCTTTGACCCCATCCGAGGCGGCCTTA-CACCACCATCCTCTG 55165 GTTGTCTGCACCTGCAGCTTTGACCCGTGCGGCCTTA-CACCACCACCATCCTCTG 610 GGCATCTTGTGGTTGGGTCACCGGTGGGGGGCGGCCTTA-CACCACCACCCTCTG 55225 GGCATCTTTTTGTGGTTGGGCTCAGCAGCGTGGGGGTTCTTCTATTGCCTCATCCACCGC 670 CAGGTCAACCAGCACACACACGAGGGTGGGGGTTCTTCTACTGCCTCATCCACCGC 670 CAGGTCAACCACACACACACACACACACACACACACACAC	959405 GGGCTTGCATCAGGGGACTCATCAGAGGGACTCAGTCAGT	Oy 1090 AGAGTCCAGGGTCCACATGCTTGCTGCCAACCTCACTGGTCTATTG9 Db 55705 AGGGCCGCGCTCCACGATATGGTTGCTGCCAACCTCACCTGGCTCAACGC 55764 Oy 1150 TGCATCAACCCTGTGCTCTATGCATGCTTGCCAATTCCACGGCTCAACGC 55764 Oy 1210 ATTTTAAAAAGCCCTCTATGCAGCCATGAACCGCCAATTTGCCAAGCTTATGGTCC 55824 Oy 1210 ATTTTAAAAAGCGCTCTATGCAGCCATGAACCGCCAATTTGCCAGGCTTATGGTCC 55824 Oy 1270 CAG 1272 Db 55825 ATCTGAACGCGCCCCAGAGTTTCCATTAGAACTTAGTACTCACTAGTCAC 55884 Oy 1270 CAG 1272 Db 55885 CAG 55887 RESULT 14 ACO16463 ACO16463 ACC16463 ACC16463 ACO16463 ACC16463

46974. Contig	6975 47074: Gan of 100 bp 7075 47972: contig of 898 bp in 1	48072: gap of 1 48961: contig o	9062 49913: contig c 914 50013: can of 1	0014 50910: contig o	1011 51872: contig c	1973 52851: contig c 2852 52951: qap of 1	2952 53831: contig c 3832 53931: gap of 1	3932 54800: contig c	4901 55795; contig c 55796 5395; dap of 1	5896 56754: contig c 6755 56854: gap of 1	6855 57727; contig of 873 bp in 1 7728 57827; gap of 100 bp	7828 58727: Contig of 18728 58827: gap of 1	8828 59722: contig c	9823 60694: contig o	0795 61673: contig o	1674 61773: gap of 1 1774 62656: contig o	2657 62756: gap of 1 2757 63636: contig c	3637 63736: gap of 100 bp 3737 64618: contiq of 882 bp in lend	4619 64718: gap of 100 bp 4719 65591: contid of 873 bp in lend	5592 65691: Contra C. 100 bp	5692 66532: CONLIG OL 641 DO III 66533 666632: gap of 100 bp 66533 67553: CONTIG OF 891 bp in	7524 67623: gap of 100 bp	7624 68518: contig of 895 bp in leng 8519 68618: gap of 100 bp	8619 69515: contig of 897 bp in leng 9516 69615: gap of 100 bp	9616 70520: contig of 905 0521 70620: gap of 100 bp	70621 71489: contig of	core 754; DB 2; Length red. No. 1.5e-183;	774; Conservative 0; Mismatches 18	CCCCTCTGGCCTATTTATATCCTGGTACCTGTAGTCTGCAC	s defeceteresectarrararecrestacersias;	Qy 577 ATCCGAGGCCGCCTTACACCACCATCCTCATGGGCATCTATGTGC	ccaccarccrcareeccar	CTTCTATTGCCTCATCCA	Db 63905 Agidildacaicticiaiteccicaicaceacadacaaacgagcac	697	63965 GAC	Oy 757 GCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCTAGGATTAGCATCAGGA
`																																		-			
, c	ga 93 bp in 1 bp	scontig of 867 bp in 1 gap of 100 bp	: contig of 861 bp in leng : gap of 100 bp : contig of 869 bp in leng	: gap of 100 bp	gap of 100 bp	gap of 100 bp	gap of 100 bp	gap of 100 bp	: gap of 100 bp	: gap of 100 bp : contig of 887 bp in]	gap of 100 bp	gap of 100 bp	gap of 100 bp	gap of 100 bp	: contig of 890 bp in L : gap of 100 bp	.: contig of 893 bp in I .: gap of 100 bp	: contig of E	contig of 8	contigof 6	contig of	gap of 100	contig of	; gap of 100 ; contig of 8	: gap of 100 bp	gap of 100 bp	: concret of 100 bp	: contig of 100 bp	.: gap of 100 bp !: contig of 853 bp in 1	1: gap of 100 bp 7: contig of 903 bp in 1	7: gap of 100 bp 1: contig of 857 bp in]	t: gap of 100 bp	or control of 100 bp	s: contrig of 899 by in a s: gap of 100 bp s: contig of 899 bp in 1	s: gap of 100 bp	7: gap of 100 bp 5: contig of 869 bp in 1	s: gap of 100 bp 9: contig of 873 bp in 1	9: gap of 100 bp
000	10728 10828 11721	1821	13649	14618	15609	16589	17545	18541	19540	* *	21525	22515	23497	24459	24559 25449	25549 26442	26542	27521	28486	29471	30365	31466	32338 32438	33305	34284	35268	36248 36348	37212	38165	39168	40125	41101	42097	43096	4058	45027 45127	46000

TRACCIGIAGICIGCACCIGCAGGITIGACCGC 576 TCATGGGCATCTACTTTGTGCTTCGGCTCCAGC 636 TCCACTCCAACCATGTGCCCAGGACTGATGAG 756 ACCGCCAGGTCAAACGAGCAGCACAGGCACTG 696 ACAGCAGGTTAGCATCAGGAGGACCCCAGTGAG 816 4; DB 2; Length 141003; 1.1.5e-183; Tches 18; Indels 1; Gaps

d

à g ò g ò q Š В ò В 8

ò g ò g à

```
Query Match
Best Local Simil
Matches 182; (
                                                                                                                                                                                                                                                                                                                                                                                                                             280
       source
                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                     64144
                                                                                                                                                                                                                  64204
                                                                                                                                                                                                                                                                                                          64205 GAAGCATCTGCCAAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCG 64264
                                                                                                                                                                                                                                                                                                                                                                                                       64324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64325 ATCCCCTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCAC 64384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64445 ATGAACCGCCAATTCCGCCAAGCATATGGGCTCCTTTTTAAAAAGGGCCCCGGAGTTT 64504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCATAGGCTCCATTANAACTGTGACCCTAGTCACCGGGATTCAAGACTGGCTCCTCCAGG 64564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              64385 ATGCTTGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGNÓ 64444
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1176
                                                                                                                                                                                                                                                                                                                                                            GAATTTGGGAAGGTGACTCGAATGTGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTAC 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1177 ATGAACCGCCAATTCCGCCAAGCATAT-GGCTCCATTTTAAAAAGAGGCCCCGGAGTTT 1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCATAGGCTCCATTAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGG 1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             synthetic construct
synthetic construct
artificial sequences.
1 (bases 1 to 1382)
Behan, D.P., Chalmers, D.T., Liaw, C., Lin, I.L., Lowitz, K. and Chen, R. Endogeneous, constitutionally activated protein G-coupled orphan
                                                                                                                                                                   936
                                                                                                                                                                                                                                                               966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RÜOPING CHEN
GOIN33/15,GOIN33/50,GOIN33/566//A61K45/00,A61P43/00,C12N15/09,
C12N15/00
                                                                        876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ARENA PHARMACEUTICALS INC
OS Artificial Sequence
PN JP 2002521681-A 20 16-JUL-2002;
ARENA PHARMACEUTICALS INC
OS Artificial Sequence
PN JP 2002521681-A/20
PD 16-JUL-1999 JP 2000562393
PR 31-JUL-1999 US 60/10906,26-FEB-1999 US 60/106300 PR 04-DEC-1998 US 60/10906,26-FEB-1999 US 60/12851 Pl DOMINIC P BEHAN, DEREK T CHALMERS, CHEN LIAW, I LIN LIN, KEVIN PI LOWITZ.
PI RUOPING CHEN
PC G12N15/00
PC C12N15/00
CC Description of Artificial Sequence: Synthetic Sequence FH KEY
FT source Location/Qualifiers
FT / Organism='Artificial Sequence'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BD229108 1382 bp DNA linear PAT 17-JUL-20
Endogeneous, constitutionally activated protein G-coupled orphan
GCCATGCTCGGTCGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGAGCCCAGTGAG
                                                                                                                                                                                                                  64145 GAAGTGGGAGACCAGATCAACAGCAAGAGGGCTAAGCAGAGTGGCAGAGAAAAGCCCTCCA
                                                                                                                                                                                                                                                                                                                                                                                     GAATTTGGGAAGGTGACTCGAATGTGTTTTTGCTGTGTTCCTCTGCTCTTGCCCTTGAGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1057 ATCCCCTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGGTCCCGGGTGGTCCAC
                                                                                                           64085 GGGATTTCATCTGAGCCAGTCAGTGCTGCCACCCCCCAGACCCTGGAAGGGGACTCATCA
                                                                                                                                                                   GAAGTGGGAGACCAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCA
                                                                        GGGATTTCATCTGAGCCAGTCAGTGCTGCCACCCCAGACCCTGGAAGGGGACTCATCA
                                                                                                                                                                                                                                                               GAAGCATCTGCCAAAGCCCAGCCAATTAAAGGAGCCCAGAAGAGCTCCGGATTCTTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1117 AIGCITGCTGCCAACCTCACCTGGCTCAAIGGTTGCATCAACCCTGTGCTCTAIGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism='Artificial Sequence' Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BD229108.1 GI:33038878
JP 2002521681-A/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64565 ACCAAGNGGCCAG 64577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1296 ACCAAAGTGGCAG 1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor
                                                                      817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1236
                                                                                                                                                                                                                                                             937
                                                                                                                                                                                                                                                                                                                                                            997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
BD229108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          339
                                                                                                                                                                                                                                                                                         219
                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             340 AGGGTATTTTGGGCTCCTCCTTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421 ATTGCCATCGACCGCTACTATGCTGTCCTGTACCCCATGGTGTACCCCATGAAGATCACA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            400 ATCGCACTGGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 crcaecaacaagricercricaecereacrerereacricererererere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCCCTTCTCTGTGGACACCTACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 creccrirreregicaceaecrecareceaecaagaarearerrigicarererered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 AACTICICIÓCCCICCICTACCIGCTGATCAGCICIGCCAGCAIGCIAACCCICGGGGIC
                                                                                                                                                                                                                                                                                         160 GGCACCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACC
                                                                                                                                                                                                                                                                                                                                                181 ercreccreceadacercercarceresicarioristacias da escrecercence
                                                                                                                                                                                                                                                                                                                                                                                                           220 CGATICAACCIGCICAIAGCCAACCICACACTGGCIGAICTCCCTCIACTGCACGCICCTI
                                                                                                                                                                                                                              ..
                                                                                                                                                                         Length 1382;
                                                                                                                                                                   Score 87.8; DB 6; Length 1
Pred. No. 1.7e-11;
0; Mismatches 157; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481 degaaccedecrereardecacrirercracarcrederr 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 498
                                 construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Search completed: September 24, 2004, 02:47:12 Job time : 5345.89 secs
1. .1382
/organism="synthetic co
/mol_type="genomic DNA"
/db_xref="taxon:32630"
                                                                                                                                                                   6.7%;
Similarity 53.7%;
22; Conservative 0
```

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                September 23, 2004, 22:02:34
                                                                                                                          OM nucleic - nucleic search, using sw model
```

4 ; Search time 591.574 Seconds (without alignments) 9414.519 Million cell updates/sec Run on:

US-10-029-436-1 1311 Title:

1 ttgaatgetaggttetgatt.......eaggaceaaagtggeaggta 1311 IDENTITY_NUC Gapopt 1.0 Perfect score: Scoring table: Sequence:

3373863 seqs, 2124099041 residues Searched:

of hits satisfying chosen parameters: Total number

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

genesequ1990s:* genesequ2000s:* genesequ2001s:* genesequ2001bs:* genesequ2001bs:* geneseqn2003as:* geneseqn2003bs:* geneseqn2003cs:* geneseqn2004s:* N Geneseq_29Jan04:* 1: geneseqn1980s:* 2: geneseqn1990s:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Acc84331 Human hp1	Aas28996 Genomic 8	DNA	Aas35064 DNA #14 e	Aak77581 Human imm	6	Genomi	Aas29737 Human end	Abt07831 Novel hum	Human	Acd01492 Human gen	Human	Aai68792 Human MAR		Human	Abt17029 Human MP2	Abz42551 Human G p	2 Human	548 Human	Aai68793 Human MAR	Aak77579 Human imm	Abz42892 Human GPC	Abv73365 Human TGR
ΩΙ	ACC84331	AAS28996	AAS30237	AAS35064	AAK77581	ABA06789	ABK44021	AAS29737	ABT07831	ABV84126	ACD01492	ADC46506	AAI68792	AAV38513	AAS98070	ABT17029	ABZ42551	AAH78712	AAI99548	AA168793	AAK77579	ABZ42892	ABV73365
DB	00	4	4	4	4	4	4	ហ	φ	v	7	σ	φ	N	w	7	7	4	4	9	4	φ	7
* Query Match Length	1311	2046	2046	2046	2046	2046	2046	2046	2046	2046	2046	2046	5460	1498	1546	1546	1546	1595	1579	1227	1416	1191	1188
% Query Match	100.0	9.66	9.66	9.66	9.66	99.66	9.66	9.66	99.6	9.66	9.66	9.66	99.66	95.8	95.8	95.8	95.8	95.8	95.8	93.6	93.0	8.06	9.06
Score	1311	1306	1306	1306	1306	0	1306	1306	1306	1306	1306	1306	1306	1256.4	1256.4	1256.4	1256.4	1256.4		1227		1191	æ
Result No.		7	е	4	2	9	7	œ	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23

The present sequence is that of nucleic acid encoding a human orphan G-protein coupled receptor, designated hpl5a. The sequence was initially identified in a human placenta genomic library using probes representing transmembrane domains III, V and VI of human serotcoin 5-HYlbbeta receptor. The endogenous ligand for hpl5a is likely to be a

Claim 1; Fig 1A-B; 98pp; English.

Abv73374 Mouse TGR	Aas98133 Human DNA	Aak77580 Human imm	Abl89786 Human pol	Aas28939 cDNA enco	Aas30167 DNA encod	Aas34782 cDNA enco	Aai99575 Human exp	Aba06396 Human cDN	Abk43453 DNA encod	Human	Abt07774 Novel hum	Abv83733 Human pol	2 Human	Adc45940 Human neo	Aak60376 Human imm	1 Human	0 Human	Abz42815 Human G p	Adb67667 Human G-p	Aav37701 Human his	Aca55686 Signallin
ABV73374	AAS98133	AAK77580	ABL89786	AAS28939	AAS30167	AAS34782	AAI99575	ABA06396	ABK43453	AAS29521	ABT07774	ABV83733	ACD01422	ADC45940	AAK60376	AAZ51461	ADA19230	ABZ42815	ADB67667	AAV37701	ACA55686
1191 7	840 6	712 4	485 6	483 4	483 4	483 4	483 4	483 4	483 4	483 5	483 6	483 6	483 7	483 9	347 4	1382 3	1382 7	1382 7	1382 8	1584 2	1584 7
67.7	64.1	52.2	27.5	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	26.4	6.7	6.7	6.7	6.7	6.7	6.7
887.6	840	684.6	360.4	355	355	355	355	355	355	355	355	355	355	355	v	87.8	87.8	87.8	87.8	87.8	87.8
24	G 52	26	27	28	29	30	31	32.	33	34	35	36	3.7	38	39	40	41	42	43	44	45

ALIGNMENTS

New recombinant nucleic acid, useful for preparing a composition for treating disorders linked to human hpl5a receptor e.g. cardiovascular or gastrointestinal disorders. Human, hpl5a, receptor, G-protein coupled receptor, cardiant, gastrointestinal, gene therapy; gene, ds. Human hp15a receptor coding sequence. Location/Qualifiers 61. .1251 /*tag= a /product= "hp15a" ACC84331 standard; DNA; 1311 BP. 19-DEC-2001; 2001US-00029436. 19-DEC-2002; 2002WO-US040612. (SYNA-) SYNAPTIC PHARM CORP. (first entry) Weinshank WPI; 2003-559173/52. P-PSDB; ABR52422. WO2003054540-A1. Homo sapiens. 03-OCT-2003 03-JUL-2003. Smith KE, ACC84331; ACC8433

Fri

```
24-FEB-2000;
02-MAR-2000;
16-MAR-2000;
17-MAR-2000;
18-APR-2000;
19-MAY-2000;
29-JUN-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                         21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-AUG-2001
                                     901
                                                                                 961
                                                                                                      1021
                                                                                                                             1021
                                                                                                                                                                       1081
                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                        1261
                 901
                                                            961
                                                                                                                                                 1081
                                                                                                                                                                                            1141
                                                                                                                                                                                                                                                                                                                                                                                     AAS28996
                                                                                                                                                                                                                                                                                                                                                    AAS28996
                                                                                                                                                                                                                                                                                                                                         RESULT
                                 g
                                                         \dot{\delta}
                                                                           g
                                                                                                      ò
                                                                                                                       g
                                                                                                                                          ò
                                                                                                                                                                    g
                                                                                                                                                                                           ઠે
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                           ô
neuromodulator since the receptor is present in several regions of the human brain. The invention provides hpl5a nucleic acids, vectors, host cells, antibodies, probes, antisense oligonucleotides, transgenic non-uman animals, methods of isolating the receptor, methods of treating an abnormality that is associated with activity of hpl5a e.g. cardiovascular or gastrointestinal disorders, and methods of determining binding of compounds to hpl5a
                                                                                                                                                                                                       120
                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                             AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 300
                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                               TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCACTGGGACGCTACCTC 420
                                                                                                                                                                                 9
                                                                                                                                                              9
                                                                                                                                                                                                                                                   TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIGAAIGCIAGGIICIGATICCCICTICCICTICCACCCICTGCCTCTTAGCCTCTAIC
                                                                                                                                                                                                        ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGCCTATCGT
                                                                                                                                                                                                                    ATGTGGAACGCCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGGCTATCGT
                                                                                                                                                                                                                                                                                             ACCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCGGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGCCACCACCAGAACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                              TTGAATGCTAGGTTCTGATTCCCTCTTCCTTCCACCCTCTGCCTCTTTAGCCTCTATC
                                                                                                                                                                                                                                                                 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                    ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCGCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                         AACCTCACACTGGCTGATCTCCTTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                     TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                  TACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCATTGCCCAAGCCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGTGAGCACCTGGGTTGTGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arcercaredecareraerrierecrieegericaecaererregearerrerarrieeere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cregracererageacerecaeerrreaceeeareeeageeegeerracaeeace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                                                                                                                  8; Length 1311;
                                                                                            T; 0 U; 0 Other;
                                                                                                                                       Indels
                                                                                                                                      ;
0
                                                                                                                  DB
                                                                                                                ; Score 1311; [; Pred. No. 0; 0; Mismatches
                                                                                            C; 315 G; 321
                                                                                                                Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1311; Conservative 0
                                                                                             Sequence 1311 BP; 266 A; 409
                                                                                                                                                             Н
                                                                                                                                                                                 Н
                                                                                                                                                                                                        61
                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
     888888888888
                                                                                                                                                              8 8
                                                                                                                                                                                                                        Op
                                                                                                                                                                                                                                                                                                               음
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                   ₹
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

1020 1080 1080 1140 1200 1200 1260 AAGAGGGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGTTGCTGCTAATT 1141 CICAAIGGIIGCAICAACCCIGIGCICIAIGCAGCCAIGAACCGCCAAIICCGCCAAGCA TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC TATGGCTCCATTTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1311

BP. AAS28996 standard; DNA; 2046

(first entry)

Human, uterine motility-association disorder; uterus, pregnancy, labour; menstrual cycle; gene therapy; ds. Genomic sequence #2 encoding novel human uterine motility polypeptide.

2000US-0184664P. 2000US-0186350P. 2000US-0189874P.

2000US-0190076P. 2000US-0198123P. 2000US-0205515P. 2000US-0209467P. 2000US-0214886P. 2000US-0216647P. 2000US-0216880P. 2000US-0217487P. 2000US-0217496P. 2000US-0218290P.

2000US-0220964P 2000US-0224518P 2000US-0224519P

```
RR 14-AUG-2000; 2000US-0222566P.

RR 14-AUG-2000; 2000US-0222566P.

RR 14-AUG-2000; 2000US-0222566P.

RR 14-AUG-2000; 2000US-0225566P.

RR 14-AUG-2000; 2000US-0225757P.

RR 14-AUG-2000; 2000US-0225757P.

RR 14-AUG-2000; 2000US-0225757P.

RR 12-AUG-2000; 2000US-0225758P.

RR 12-AUG-2000; 2000US-0225758P.

RR 22-AUG-2000; 2000US-0225758P.

RR 22-AUG-2000; 2000US-0225758P.

RR 10-SEP-2000; 2000US-0225781P.

RR 10-SEP-2000; 2000US-0225914P.

RR 10-SEP-2000; 2000US-0225914P.

RR 10-SEP-2000; 2000US-0225914P.

RR 10-SEP-2000; 2000US-022914P.

RR 10-SEP-2000; 2000US-023914P.

RR 10-SEP-2000; 2000US-0233144P.

RR 10-SEP-2000; 2000US-0233144P.

RR 10-SEP-2000; 2000US-023314P.

RR 10-SEP-2000;
```

```
PR 09-NOV-2000; 2000US-0246522P.

PR 09-NOV-2000; 2000US-0246522P.

PR 09-NOV-2000; 2000US-0246522P.

PR 09-NOV-2000; 2000US-024651P.

PR 09-NOV-2000; 2000US-024651P.

PR 09-NOV-2000; 2000US-024651P.

PR 09-NOV-2000; 2000US-024651P.

PR 17-NOV-2000; 2000US-024501P.

PR 17-NOV-2000; 2000US-02420P.

PR 20-NEC-2000; 200
```

1 ITGAAIGCIAGGIICIGAIICCCICTICCICITICCACCCICIGCCICITIAGCCICIAIC 60

· 0

0; Indels

99.6%; Score 1306; Ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches

Query Match Best Local Similarity Matches 1306; Conserv

DB 4; Length 2046;

Db 1657 CTGGATGCCAGGTCCAGGTGTCCACATGCTTGCTGCCAACCTCACCTGG 1716	RESULT 3 AAS30237 ID AAS30237 standard; DNA; 2046 BP. XX	AC AA830237; XX XX	DNA encoding renal Human, antiinflamm	immunosuppressive; kidney disorder; renal cardiovascular disorder; myocardial infarc blood coaqulation disorder; electrolyte in buronaltasemis. buroarbalamis neonlastic	autoimmune disease; inflammatory disease; endocrine disorder; neural activity; neur wound healing; respiratory disorder; ss.	XX Homo sapiens. XX	PD 02-AUG-2001. XX PF 17-JAN-2001; 2001WO-US001359.	31-JAN-2000; 04-FEB-2000; 24-FEB-2000;	PR 16-MAR-2000; 2000US-0189874P. PR 16-MAR-2000; 2000US-0190076P. PR 17-MAR-2000; 2000US-0190076P. PR 18-APE-2000; 2000US-019123P.	28-JUN-2000;	11-JUL-2000;	26-JUL-2000; 26-JUL-2000; 14-AUG-2000;	14-AUG-2000; 14-AUG-2000; 14-AUG-2000; 14-AUG-2000;	14-AUG-2000; 14-AUG-2000; 14-AUG-2000; 14-AUG-2000;	14-AUG-2000; 14-AUG-2000; 14-AUG-2000;
	кчнх	:«×¤×	.0 * * *	,	4 X X X ;	40פ;	< × >	4 10, 10, 10, 1	7 D. D. D. D.	יים ים ים נ	יים ים ים כ	ים בם בם ו			יטיטי
				,						-				, ************************************	
	241 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 300	301 TACCTCCACCTGCACTGGGGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 360	361 TITGCCTCCAATTCTGTCTCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC 420	421 CTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA 480	481 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 540	541 CTGGTACCTGTAGTCTGCACCTTGGACCTTTGACCGCGTCCGAGGCGGGCCTTACACCACC 600	601 ATCCTCAIGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 660	661 ATCCACCGCCAGGTCAAAGGAGCAGAGACATGGACCAATACAAGTTGCGACAGGCA 720	721 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 780	781 CTGGACAGCAGGTTAGCATCAGGAGCACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT	841 GCTGCCACCACCCAGACCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC 900	901 AAGAGGGTAAGGAGATGGCAGAGAAAAGCCTTCCAGAAGCATCTGCCAAAGCCCAGCCA 960 	961 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020	1021 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCACATT 1080	1081 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCACATGCTTGCT

```
18-AUG-2000, 2000US-0226279P.
22-AUG-2000; 2000US-0226681P.
22-AUG-2000; 2000US-0227182P.
23-AUG-2000; 2000US-0227182P.
23-AUG-2000; 2000US-0227182P.
23-AUG-2000; 2000US-022914P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-0229344P.
06-SEP-2000; 2000US-0229344P.
06-SEP-2000; 2000US-0229344P.
06-SEP-2000; 2000US-0229344P.
06-SEP-2000; 2000US-0229344P.
06-SEP-2000; 2000US-0231244P.
08-SEP-2000; 2000US-0231243P.
08-SEP-2000; 2000US-0231243P.
08-SEP-2000; 2000US-02313414P.
08-SEP-2000; 2000US-02313414P.
08-SEP-2000; 2000US-0231398P.
14-SEP-2000; 2000US-0231398P.
14-SEP-2000; 2000US-0231398P.
14-SEP-2000; 2000US-0232399P.
```

```
The invention relates to novel nucleic acids and polypeptides useful for diagnosing, treating, preventing and/or prognosing disorders related to these polypeptides. The polynucleotides are especially useful in the diagnosis, prognosis, prevention and/or treatment of diseases which include kidney disorders (e.g. renal failure or nephritis), cardiovascular disorders (e.g. hypertension or myocardial infarction), condiovascular disorders (e.g. hypertension or myocardial infarction), electrolyte imbalance disorders (e.g. hyponatraemia or hyperkalaemia), neoplastic disorders (e.g. nephtoma or renal cell cancer), autoimmune disorders, neural activity and neurological disorders, endocrine disorders, neural activity and neurological disorders, wound healing and respiratory disorders. AAS30165-AAS30251 represent the novel invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at: ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New polynucleotides and polypeptides, useful for diagnosing, treating, preventing or prognosing e.g. kidney, cardiovascular, blood, electrolyte imbalance or neoplastic disorders, autoimmune diseases, cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INGRANGCIAGGITCIGATICCCICTICCICTICCACCCICTGCCICTITAGCCICTAIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               577 TTGAATGCTAGGTTCTGATTCCCTCTTCCACCCTCTGCCTCTTTAGCCTCTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4; Length 2046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
99.6%; Score 1306; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1306; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID NO 155; 506pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ruben SM;
08-NOV-2000; 2000US-0246613P.
17-NOV-2000; 2000US-0249207P.
17-NOV-2000; 2000US-0249209P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-0249210P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249218P.
17-NOV-2000; 2000US-0249218P.
17-NOV-2000; 2000US-024926FP.
17-NOV-2000; 2000US-024926PP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200005-0251030P
200008-0251988P
200008-025198P
200008-0251479P
200008-0251868P
200008-0251868P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0251989P.
2000US-0251990P.
2000US-0254097P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-488787/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117-NOC-2000, 201-DEC-2000, 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Н
             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

ö

636

```
01-SEP-2000; 2000US-0229343P.
01-SEP-2000; 2000US-02293443P.
05-SEP-2000; 2000US-02295045P.
06-SEP-2000; 2000US-02295045P.
06-SEP-2000; 2000US-0229513P.
06-SEP-2000; 2000US-02312443P.
08-SEP-2000; 2000US-02312443P.
08-SEP-2000; 2000US-02312443P.
08-SEP-2000; 2000US-02312443P.
08-SEP-2000; 2000US-02312444P.
08-SEP-2000; 2000US-0231413P.
08-SEP-2000; 2000US-0231941P.
14-SEP-2000; 2000US-023298P.
14-SEP-2000; 2000US-023299P.
14-SEP-2000; 2000US-023290P.
14-SEP-2000; 2000US-023290P.
14-SEP-2000; 2000US-023290P.
14-SEP-2000; 2000US-023290P.
14-SEP-2000; 2000US-023290F.
14-SEP-2000; 2000US-0233065P.
21-SEP-2000; 2000US-0233065P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0241785P
2000US-0241786P
2000US-0241808P
2000US-0241808P
2000US-0241806P
2000US-0241826P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0246609P
2000US-0246610P
2000US-0246611P
2000US-0249207P
2000US-0249207P
2000US-0249209P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0234997P.
2000US-0234998P.
2000US-0235484P.
2000US-0235834P.
2000US-0235836P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0236327P.
2000US-0236367P.
2000US-0236368P.
2000US-0236369P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-SEP-2000; 2000US-0236369P
29-SEP-2000; 2000US-0236370P
02-OCT-2000; 2000US-0236802P
02-OCT-2000; 2000US-0237037P
02-OCT-2000; 2000US-0237033P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0246477P.
2000US-0246478P.
2000US-0246523P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0246524P.
2000US-0246525P.
2000US-0246526P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0246527P.
2000US-0246528P.
2000US-0246532P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0246474P
2000US-0246475P
2000US-0246476P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0249210P
2000US-0249211P
2000US-0249212P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT-2000
20-0CT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2000;
26-SEP-2000;
27-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-OCT-2000;
02-OCT-2000;
13-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-SEP-2000;
```

The present invention relates to the isolation of novel human neoplastic disease associated polypeptides (AAU21568-AAU21851), and CDNA and DNA sequences encoding for these polypeptides. The sequences of the invention according for these polypeptides. The sequences of the invention care useful in the diagnosis, treatment, prevention and/or prognosis of disorders involving neoplastic disease such as hyperproliferative disorders involving neoplastic disease such as hyperproliferative disorders (as leakemia, bone cancer, bladder cancer, brain stem glioma, adult liver cancer, childhood carebellar astrocytoma, or Hodgkin's lymphoma). The sequences of the invention may also be useful for treating other disorders, such as neural disorders, immune system disorders, muscular disorders, cardiovascular disorders and renal disorders, pulmonary disorders, cardiovascular disorders and renal disorders. The polymunelectide sequences of the invention are also useful in gene therapy. AAS35051-AAS3125 represent DNA sequences encoding for the novel human neoplastic disease associated polypeptides of the the printed specification, but was obtained in electronic format directly from MIPO at ftp. wipo.int/pub/published_pct_sequences 61 AIGIGGAACAGCICTGACGCCAACITCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 120 Novel polypeptides and polynucleotides useful as diagnostic reagents to diagnose diseases or disorders associated with aberrant expression or activity of polypeptides, and for treating cancers, rheumatoid arthritis. 1 TIGAAIGCIAGGITCTGAITCCCTCTTCCTCTTCCACCCTCTGCCTCTTTAGCCTCTATC Gaps ., Query March 99.6%; Score 1306; DB 4; Length 2046; Best Local Similarity 100.0%; Pred. No. 0; Matches 1306; Conservative 0; Mismatches 0; Indels 0 Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0.U; 0 Other; Disclosure; SEQ ID NO 592; 687pp; English Barash SC, Ruben SM, 2000US-0249213P 2000US-0249214P 2000US-0249214P 2000US-0249214P 2000US-0249218P 2000US-0249244P 2000US-0249244P 2000US-024924P 2000US-024929P 2000US-024929P 2000US-024929P 2000US-024929P 2000US-024929P 2000US-024929P 2000US-024929P 2000US-025019P 2000US-025019P 2000US-025019P 2000US-025019P 2000US-0251856P. 2000US-0251868P. 2000US-0251869P. 2000US-0251989P 2000US-0254097P (HUMA-) HUMAN GENOME SCI INC WPI; 2001-465558/50. 17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
17-NOV-2000)
18-NOV-2000)
18-NO Rosen CA, CD ò 8

180

| TATGITGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC

121

ò

9

SEQ ID NO:32393

```
Human; immune; haematopoietic; immune/haematopoietic antigen; cancer; cytostatic; gene therapy; vaccine; metastasis; ds.
                     1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882
         1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC
                                                                                                                                                    Human immune/haematopoietic antigen genomic sequence
                                                                                    ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0217487P.
2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0225213P.
2000US-0225214P.
2000US-025266P.
2000US-022526P.
2000US-022528P.
2000US-022547P.
2000US-0225447P.
2000US-0225447P.
2000US-0225447P.
                                                                                                                                                                                                                                                                                                         2000US-0180628P.
2000US-0184664P.
2000US-0186350P.
                                                                                                                                                                                                                                                                                                                                          2000US-0189874P.
2000US-0190076P.
2000US-0198123P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0220964P.
2000US-0224518P.
2000US-0224519P.
                                                                                    AAK77581 standard; DNA; 2046
                                                                                                                                                                                                                                                                          17-JAN-2001; 2001WO-US001354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0226681P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0227182P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0228924P
                                                                                                                              07-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2008-02.
00008-0226*
200008-022
                                                                                                                                                                                                                               WO200157182-A2.
                                                                                                                                                                                                                                                                                                                                                    117-MAR 2000)
18-AAR-2000)
07-UN 2000)
07-UN 2000)
07-UN 2000)
07-UL 2000)
11-UL 2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-AUG-2000;
22-AUG-2000;
23-AUG-2000;
30-AUG-2000;
01-SEP-2000;
                                                                                                                                                                                                                                                                                                          04-FBB-2000;
24-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
18-AUG-2000;
22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-SEP-2000;
                                                                                                                                                                                                                                                     09-AUG-2001
                                                                                                         AAK77581;
                                                                          AAK77581
                                                                RESULT
          8
                            g
                                                                                                1056
                                                                                                                                                                                                                                                                1116
                                                                                                                                                                                                                                                                                                   1177 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 1236
                                                                                                                                                                                                                                                                                                                                                                                                                                       1297 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1776
                                                                                                                                                                                                                                                                                                                                                                                       ATCCACCGCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA 1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGGAGACCAGATCAACAGC 1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CICAAIGGIIGCAICAACCCIGIGCICIAIGCAGCCAIGAACCGCCAAITCCGCCAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATGECTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATGGCTCCATTTTAAAAAGGGCCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                           816
                                                                                                           360
                                                                                                                                                                                                480
                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                     009
                                                                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                     876
                                                                                                                               936
                                                                                                                                                     420
                                                                                                                                                                          966
                                                                AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 300
597 IATGITGCAGITAGCTGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 756
                               ringcenecamienererecenecieaecerereceneecereaecaeaeceraeere
                                                                                                                                                                                                                                                                                                                                                                                                                      721 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                           TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT
                                                                                                                                                                                                                                           CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                         CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                     AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCCTTCTCTGTGGACACC
                                                                                                                         TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                   CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                            ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
                                                                                                                                                                                                CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGCCACCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u> ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC</u>
                                                                                   817
                                                                                                                                                                                                                                                                                                           1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1717
                     181
                                                                241
                                                                                                          301
                                                                                                                               877
                                                                                                                                                     361
                                                                                                                                                                          937
                                                                                                                                                                                                421
                                                                                                                                                                                                                      997
                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                1057
                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1777
                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           යි. දු
                   ò
                                        g
                                                           ò
                                                                                d
                                                                                                         ò
                                                                                                                          g
                                                                                                                                                    8
                                                                                                                                                                        g
                                                                                                                                                                                             ò
                                                                                                                                                                                                                q
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

```
08-SEP-2000; 2000US-0231244P.
08-SEP-2000; 2000US-0231413P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-023208P.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-023239BP.
14-SEP-2000; 2000US-0233064P.
14-SEP-2000; 2000US-0233064P.
14-SEP-2000; 2000US-0233065P.
21-SEP-2000; 2000US-0234223P.
21-SEP-2000; 2000US-0234223P.
21-SEP-2000; 2000US-0234223P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-NOV-2000; 2000US-0246528P.
08-NOV-2000; 2000US-0246532P.
08-NOV-2000; 2000US-0246610P.
08-NOV-2000; 2000US-0246611P.
06-NOV-2000; 2000US-0246611P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-0249210P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
                                                                                                                                                                                                                                                                                                                                                                                               25-SEP-2000; 2000US-0234997P.
25-SEP-2000; 2000US-0234998P.
27-SEP-2000; 2000US-0235484P.
27-SEP-2000; 2000US-0235834P.
29-SEP-2000; 2000US-0235834P.
29-SEP-2000; 2000US-023537P.
29-SEP-2000; 2000US-023537P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-SEP-2000; 20-SEP-2000; 20-OCT-2000; 20-OC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-2000
08-NOV-2000
```

```
AAKS4951 to AAK64702 encode the human immune/haematopoietic antigen (I)
amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
activity, and can be used in gene therapy and vaccine production. (I)
contains and polynucleotides may be used in the prevention, diagnosis and
treatment of diseases associated with inappropriate (I) expression. For
example, they may be used to treat disorders associated with decreased
contains affect the activity of (I) by expressing inactive proteins or to
supplement the patients own production of (I). Additionally, (I)
couplynucleotides may be used to produce the secreted (I), by inserting the
nucleic acids into a host cell and culturing the cell to express the
concers and cancer metastases of haematopoietic-related diseases, especially
cancers and cancer metastases of haematopoietic derived cells. AAK64703
cancers and cancer metastases of haematopoietic antigen genomic
to AAK87694 represent human immune/haematopoietic antigen genomic
sequences from the present invention. AAK54942 to AAK64550 and AAM82169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 300
                                                                                                                                                                                                                                                                                                                                                                                                            Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGCCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIGAAIGCIAGGIICTGAIICCCICTTCCTTTCCACCCTCTGCCTTTAGCCTTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 32393; 3071pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 2046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
99.6%; Score 1306; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1306; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                               SM;
         17-NOV-2000; 2000US-0249297P.
17-NOV-2000; 2000US-0249297P.
17-NOV-2000; 2000US-0249300P.
01-DEC-2000; 2000US-025010P.
05-DEC-2000; 2000US-025103P.
05-DEC-2000; 2000US-025103P.
05-DEC-2000; 2000US-025149P.
06-DEC-2000; 2000US-025149P.
06-DEC-2000; 2000US-02518F.
06-DEC-2000; 2000US-02518F.
                                                                                                                                                                                                                                                                                                                                               Rosen CA, Barash SC, Ruben
                                                                                                                                                                                                                      2000US-0251989P.
2000US-0251990P.
2000US-0254097P.
                                                                                                                                                                                                                                                                                                           (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-483426/52
                                                                                                                                                                                                                      08-DEC-2000; 2
08-DEC-2000; 2
11-DEC-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

756

The said of the said

AC ABA06789; XX DT 10-JAN-2002 (first entry) XX DE Human genomic DNA SEQ ID NO: 875.	XX XW XW XW Human; gene therapy; neural disorder; immune system disorder; XW Muscular disorder; reproductive disorder; gastrointestinal disorder XW pulmonary disorder; cardiovascular disorder; renal disorder; XX XX ACC Homo canions	WO200	17-JAN-2001; 31-JAN-2000;	04-FEB-2000; 24-FEB-2000; 02-MAR-2000; 16-MAR-2000;	17-MAR-2000; 18-APR-2000; 19-MAY-2000; 07-JUN-2000;	28-JUN-2000; 30-JUN-2000; 07-JUL-2000;	11-JUL-2000; 11-JUL-2000; 14-JUL-2000;	26-001-2000; 26-001-2000; 14-AUG-2000; 14-AUG-2000;	14-AUG-2000; 14-AUG-2000; 14-AUG-2000;	14-AUG-2000; 14-AUG-2000; 14-AUG-2000;	14-AUG-2000; 18-AUG-2000; 22-AUG-2000;	22-AUG-2000; 23-AUG-2000; 30-AUG-2000; 01-SED-2000;	01-SEP-2000; 01-SEP-2000; 01-SEP-2000; 01-SEP-2000;	05-SEP-2000; 06-SEP-2000; 06-SEP-2000; 06-SEP-2000;	08-SEP-2000; 08-SEP-2000; 08-SEP-2000; 08-SEP-2000;	PR 08-SEP-2000; 2000US-023114F. PR 08-SEP-2000; 2000US-023180P. PR 12-SEP-2000; 2000US-0231968P. PR 12-SEP-2000; 2000US-0231968P. PR 14-SEP-2000; 2000US-0232397P. PR 14-SEP-2000; 2000US-023398P.
301 TACCTCCACCTGCACTGGCGCACCTTCTGCAGGTATTTGGCTCCTCTT 360	TIGECTCCAATTCTGTCTCTGACCTCTGCCTCATCGCACTGGGACGCTAC TCATTGCCCACCCTAGGTTTTCAGTGCCAAGGGGATAGTGCTG TCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTG TTTTCCCCAAGTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTG	CTGGTGAGCACCTGGGTTGTGGGCCTGGCCTAGCTTTGCTCCCCTCTGGCCTATTTATATCTCTGGTGAGCACCTGGGCTATTTATATCTCTGGTGAGCACCTGGGCTTTTGTTGCTCCCTCTGGCCTATTTATATCTCTGGTGAGCACCTGGGCTATTTATATCTGGTGAGCTATTTATATCTGGTGAGGTGGGGGGGG	CTGGTACTGTAGTCTGCACCTTGACCTTTGACCGCATCCGAGGCCGCTGTGTTTTTGACCGCATCCGAGGCCGCTGCGAGGCCGCATCCGAGGCCGCATCCGAGGCCGCATCCGAGGCCGCATCCGAGGCCGCATCCGAGGCCGCATCGAGGCCGCATCGAGGCCGCATCAGAGGCCGCATCGAGGCCGCATCAGAGGCCGCATCAGAGGCCGCATCAGAGGCCGCATCAGAGGCCGCATCAGAGGCCGCATCAGAGGCCGCATCAGAGAGCCAGAGAGCCAGAGAGAG	601 AICCTCATGGGCATCTATTGTGCTTGGGCTCAGCGTGTTGGCATCTTCTATTGCCTC 660 1177 AICCTCATGGGCATCTATTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 1236	661 ATCCACCGCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA 720 	721 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 780	781 CTGGACAGCAGGTTAGCATCAGGAGCCCAGTGAGGGGGATTTCATCTGAGCCAGTCAGT	841 GCTGCCACCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAG 900	901 AAGAGAGCTAAGCAGAGAGAGAGAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 960 	961 ATTAAAGGAGCCAGAAGACTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020 	1021 TGTTTTGCTGTGTTCCTCTGCCTTGGGCTACATCCCCTTCTTGCTGCTCACATT 1080	1081 CIGGAIGCCAGAGTCCACGGGTGGTCCACATGCTTGCTGCCACCTCACCTGG 1140	1141 CTCAATGGTTGCATCAACCCTGTGCTGCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200	1201 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1260	1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306	RESULT 6 ABA06789 ID ABA06789 standard; DNA; 2046 BP. XX

Isolated nucleic acid molecule encoding an inflammation-associated polypeptide is used in preventing, treating or ameliorating a medical condition.

Š

Ruben

Rosen CA,

WPI; 2001-476161/51

(HUMA-) HUMAN GENOME SCI INC Barash SC,

05-DEC-2000; 2000US-0256719P. 06-DEC-2000; 2000US-0251479P. 08-DEC-2000; 2000US-0251868P. 08-DEC-2000; 2000US-0251868P. 08-DEC-2000; 2000US-0251869P. 08-DEC-2000; 2000US-025199P. 08-DEC-2000; 2000US-025199P. 01-DEC-2000; 2000US-025199P.

```
14-SEP-2000; 2000US-0232399P.
14-SEP-2000; 2000US-0233400P.
14-SEP-2000; 2000US-0233400P.
14-SEP-2000; 2000US-0233400P.
14-SEP-2000; 2000US-023364P.
21-SEP-2000; 2000US-023424P.
21-SEP-2000; 2000US-023424P.
22-SEP-2000; 2000US-023424P.
23-SEP-2000; 2000US-023424P.
24-SEP-2000; 2000US-023424P.
25-SEP-2000; 2000US-023434P.
25-SEP-2000; 2000US-023439P.
25-SEP-2000; 2000US-023439P.
25-SEP-2000; 2000US-023434P.
25-SEP-2000; 2000US-0234417P.
26-OCT-2000; 2000US-0234417P.
26-OCT-2000; 2000US-0234417P.
26-OCT-2000; 2000US-0234417P.
26-OCT-2000; 2000US-0234417P.
26-NOV-2000; 2000US-0234417P.
26-NOV-2000; 2000US-0234417P.
26-NOV-2000; 2000US-0234637P.
26-NOV-2000; 2000US-0234632P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08 NOV-2000; 2000US-0246613F.
17 NOV-2000; 2000US-0249209P.
17 NOV-2000; 2000US-0249209P.
17 NOV-2000; 2000US-0249209P.
17 NOV-2000; 2000US-0249210P.
17 NOV-2000; 2000US-0249211P.
17 NOV-2000; 2000US-0249211P.
17 NOV-2000; 2000US-0249211P.
17 NOV-2000; 2000US-0249214P.
17 NOV-2000; 2000US-0249214P.
17 NOV-2000; 2000US-0249218P.
17 NOV-2000; 2000US-0249218P.
17 NOV-2000; 2000US-024926FP.
17 NOV-2000; 2000US-024929P.
17 NOV-2000; 200US-024929P.
17 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38-NOV-2000;
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   crcarrecceacecraagerrirrecceaagrirreagiecaaggaaaggaaragrecregea 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGCTGGGGCACCGGGGCAATGTGCTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 360
                                                                                                                                                                                                                                                                                    The present invention provides human cDNAs, proteins and related genomic DNAs. These can be used in the treatment of neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal and proliferative disorders and inflammation. The present sequence is a genomic DNA of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGTGGTGACAGGCACCGTGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITGCCICCAATICIGICICCAICCIGACCCICIGCCICAICGCACIGGGACGCIACCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGCCTCCATTCTGTCTCCATCCTGACCCTCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGTGAGCACCTGGGTTGTGGGCGTGGCCCAGCTTTGCTCCCCTCTGGCCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                                                                                                                                                                                                                                                                                                                                                                                                     DB 4; Length 2046;
                                                                                                                                                                                                                                                             Disclosure, SEQ ID NO 875, 859pp + Sequence Listing, English.
                                                                                                                                                                                                                                                                                                                                                                            U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                            Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                    Score 1306; DE; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 TIGAAIGCTAGGTTCTGAITCCCTCTTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0%; Pr
Matches 1306; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

us-10-029-436-1.rng

a 8 엄 ò d ò

à

d 8 g δ g

```
17-JAN-2001; 2001WO-US001332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0232398P
2000US-0232399P
                                                                                                                                        17-MAR-2000;
18-APR-2000;
19-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-SEP-2000;
                        02-AUG-2001
1236
                                                                                     1296
                                                                                                                                         1356
                                                                                                                                                                                           1416
                                                                                                                                                                                                                                            1476
                                                                                                                                                                                                                                                                                                                                      TGTTTTGCTGTGTTCCTCTGCCTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCACATT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1836
                                                                                                                                                                                                                                                                                           AAGAGAGCTAAGCAGAGAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 1536
                                                                                                                                                                                                                                                                                                                       ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                          TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC. 1260
                                                              720
                                                                                                                780
                                                                                                                                                                 840
                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Central nervous system; CNS; autoimmune disease; rheumatoid arthritis; hyperproliferative disorder; neoplasm; cardiovascular disorder; cardiac arrest; cerebrovascular disorder; sechaemia; angiogenesis; nervous system disorder; Alzheimer's disease; AIDS; ocular disorder; acquired immunodeficiency virus; dysphagia; gastrointestinal disorder; adenocarcinoma; reproductive system disorder; testicular feminisation; enspiratory disorder; scancer; leukaemia; neovascularisation; respiratory disorder; renal disorder; kidney failure; blood disorder; myocardial infarction; wound healing; cell proliferation; skin aging; food additive; food preservative; gene therapy; gene; ds.
          Agcarccaccaaccargreeccaggacrgargaggccargccrggregrrandeag
                                                                                                                                                                              661 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                              ATCCACCGCCAGGTCAAACGAGCACGAGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                               AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                    GCTGCCACCCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                    GCTGCCACCACCCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAGACAGC
                                                                                                                                                                                                                                                                     AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                           Genomic DNA encoding novel central nervous system protein #33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABK44021 standard; DNA; 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-2002
                                   1177
                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                           1417
                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1657
            601
                                                                                     1237
                                                                                                                721
                                                                                                                                         1297
                                                                                                                                                                 781
                                                                                                                                                                                          1357
                                                                                                                                                                                                                                                                                             1477
                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                  1597
                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABK44021;
```

원

8 g à 원 δ 원 à g

8

2000US-0235836P

Homo sapiens

ABENDER 7
ABENDER 7
ABENDER ABENDER 7
AND ABENDER 6
AND AND ABENDER 6
AND AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER 6
AND ABENDER

```
29-SEP-2000; 2000US-0236327P.
29-SEP-2000; 2000US-0236367P.
29-SEP-2000; 2000US-0236369P.
29-SEP-2000; 2000US-0236369P.
29-SEP-2000; 2000US-0236370P.
02-OCT-2000; 2000US-0237034P.
02-OCT-2000; 2000US-0237034P.
02-OCT-2000; 2000US-0237034P.
02-OCT-2000; 2000US-0237034P.
02-OCT-2000; 2000US-0237034P.
03-OCT-2000; 2000US-0237034P.
03-OCT-2000; 2000US-0237034P.
03-OCT-2000; 2000US-0237036P.
03-OCT-2000; 2000US-0241786P.
03-OCT-2000; 2000US-0241786P.
03-OCT-2000; 2000US-0241786P.
03-OCT-2000; 2000US-0241786P.
03-OCT-2000; 2000US-0241786P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249265P.
17-NOV-2000; 2000US-024929PP.
17-NOV-2000; 2000US-024929P.
17-NOV-2000; 2000US-024930P.
01-DEC-2000; 2000US-0249300P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-NOV-2000; 2000US-0249212P.
17-NOV-2000; 2000US-0249213P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249215P.
17-NOV-2000; 2000US-0249216P.
17-NOV-2000; 2000US-0249216P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-NOV-2000; 2000US-0249218P.
17-NOV-2000; 2000US-0249244P.
17-NOV-2000; 2000US-0249245P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-OCT-2000;
01-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-NOV-2000
08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-NOV-2000
08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-NOV-2000
17-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .7-NOV-2000
        $\\ \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL BETT \text{REAL
```

(HUMA-') HUMAN GENOME SCI INC.

Ruben SM;

Barash

Rosen CA,

WPI, 2001-581633/65.

New isolated nucleic acid encoding a protein for diagnosing, preventing, treating or ameliorating medical conditions and used as food additives or preservatives

Disclosure; SEQ ID NO 1209; 837pp; English

The invention describes an isolated nucleic acid molecule (I) encoding a novel central nervous system protein. (I) and polypeptides (III) encoded to pathological conditions and in diagnosis of a pathological condition. Disorders which are diagnosed or treated include autoimmune diseases e.g. rheumatoid arthritis, hyperproliferative of sorders e.g. neoplasms of the breast or liver, cardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cardiac arrest, system disorders e.g. Alzheimer's disease and amylotrophic lateral selerosis, infections caused by bacteria, viruses c.g. Acquired immunodeficiency virus (AIDS) and fund; ocular disorders e.g. desphagia, occupanting menoractionas and irritable bowel syndrome, reproductive system disorders e.g. testicular felbencel syndrome, reproductive system disorders e.g. testicular felbencel syndrome, reproductive system disorders e.g. testicular felbencel syndrome, reproductive system classorders e.g. novolving neovascularisation e.g. malignancies, respiratory disorders e.g. nonallergic rhinitis, renal disorders e.g. caute kidney failure and blood related disorders e.g. myocardial continue and blood related disorders e.g. myocardial content are polypeptides can also be used to aid wound healing and epithealial cell proliferation, to prevent skin aging due to sunburn, to maintain organs before transplantation, for supporting cell culture of primary tissues, to regenerate tissues and in chemotaxis. The publy peptides can also be used as a food additive or preservative to increase or decrease storage capabilities and in chemotaxis. The content, increase or decrease storage capabilities and content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librarial content, librar increase or decrease storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, cofactors and other nutritional

Gaps ., 99.6%; Score 1306; DB 4; Length 2046; 100.0%; Pred. No. 0; ive 0; Mismatches 0; Indels 0; 1 TIGAAIGCIAGGIICIGAIICCCICITCCICIICCACCCICIGCCICI Best Local Similarity 100. Matches 1306, Conservative Query Match

ò

ð

ò 셤 à g à g ò g ð 9 δ

TATGTTGCAGTTAGCTGGGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 697 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGTGGCTGTGAGCAGGCACCGTGGGCAATGTGCTC 121

ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC ACCCTACTGGCCTTGGCCCATCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 181 757

AACCTCACACTGGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACCC AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 241 817 301

racciccaccideacidececacedeceaccifciacaedecaectatingeeciccic

877

936

480

crcarrecccacceraagerrrrrecccaagrrrreagededaagegaragegea 1056 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTATATC CICATIGCCCAAGCCTITITCCCCAAGITITICAGIGCCAAGGGGAIAGIGCTGGCA 997 481 421

```
wound healing; skin aging; organ transplantation; food preservative;
tissue regeneration; anti-infertility.
                                                                                                                              2000US-0179065P.
2000US-0180628P.
2000US-0184664P.
2000US-0186350P.
                                                                                                                                                                                                 2000US-0198123P.
2000US-0205515P.
2000US-0209467P.
2000US-0214886P.
2000US-0215135P.
                                                                                                                                                                                                                                                            2000US-0216647P.
2000US-0216880P.
2000US-0217487P.
                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0225267P.
2000US-0225268P.
2000US-0225270P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0226279P.
2000US-0226681P.
2000US-022888P.
2000US-0227182P.
2000US-0227009P.
2000US-0228924P.
                                                                                                                                                                                                                                                                                                                                                                    2000US-0225213P.
2000US-0225214P.
2000US-0225266P.
                                                                                                                                                                                                                                                                                               2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
                                                                                                                                                                                                                                                                                                                                  2000US-0220964P.
2000US-0224518P.
2000US-0224519P.
                                                                                                                                                                             2000US-0189874P
                                                                                                                                                                                         2000US-0190076P
                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0225447P.
                                                                                                       17-JAN-2001; 2001WO-US001308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0231242P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02323
                                                                                                                                                                                       17-MAR-2000;
18-APR-2000;
19-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-SEP-2000;
21-SEP-2000;
21-SEP-2000;
                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                    14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-AUG-2000;
23-AUG-2000;
30-AUG-2000;
                                                                                                                                                                 02-MAR-2000;
16-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                  14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                         04-FEB-2000;
                                                                                                                                                                                                                                                   30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                               14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                       14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-SEP-2000;
                                                                                02-AUG-2001
1296
                                                                                                                                                                                                                           1416
                                                                                                                                                                                                                                                                          1476
                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1200
                                   1176
                                                                                                                                                                             1356
                                                                                                                                                                                                                                                                                                             ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
                                                                                                                                                                                                                                                                                                                                                                      1596
                                                                                                                                                                                                                                                                                                                                                                                                                    1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATGGCTCCATTTTAAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1836
                                                           099
                                                                                                        720
                                                                                                                                                       780
                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                 096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Endocrine protein, human, mouse, rabbit, goat, horse, food additive, cat, adog, chicken; sheep; immunosuppressive; antiarthritic, vasotropic, antirhumatic, antiproliferative; cytostatic, cardiant, neuroprotective, cerebroprotective, nootropic, antibacterial, virucide; fungicide; cancer, ophthalmological, vulnerary; gene therapy; autoimmune disease; neoplasm; hyperproliferative disorder; breast, liver; cardiovascular disorder; ds, cerebrovascular disorder; nervous system disorder; bacterial infection; fungal infection; viral infection; coular disorder; respiratory disorder; gastrointestinal disorder; renal disorder; respiratory disorder;
                                  1177 ArcerchideschictActrisischingschichscheringschictristatingschic
                                                                                                                       ATCCACCGCCAGGTCAAACGAGCAGCACCAGGACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                       AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                    AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                      GCTGCCACCACCCAGACCCTGGAAGGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                               ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1597 retritecteretrecteretriecetrisecetracetrecteretrectrecteretreater
                                                                                                        ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                          creeacaccaectraccarcagaacaacccaeraaagagarrrcarcreagccagreagr
                                                                                                                                                                                                                                                  GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCCAGATCAACAGC
                                                                                                                                                                                                                                                                                               AAGAGGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                             TGTTTTGCTGTGCTTCTGCTTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGGCCAATTCCGCCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
                                                                                                                                                                                                     Human endocrine polypeptide encoding genomic DNA SEQ ID No 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAS29737 standard; DNA; 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-NOV-2001
                                                                                                                                                                             1297
                                                                                                                                                                                                                           1357
                                                                                                                                                                                                                                                                                                                      1477
                                                                                                                                                                                                                                                                                                                                                                     1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1777
                                                           601
                                                                                                        661
                                                                                                                              1237
                                                                                                                                                      721
                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                         1417
                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAS29737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                        \delta
                                                                                                       à
                                                                                                                         Db
                                                                                                                                                     8
                                                                                                                                                                      q
                                                                                                                                                                                                   à
                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
```

Ruben SM;

Barash SC,

Rosen CA,

WPI; 2001-451936/48

(HUMA-) HUMAN GENOME SCI INC. 05-JAN-2001; 2001US-0259678P

```
25-SEP-2000; 2000US-023499PP 26-SEP-2000; 2000US-023499PP 27-SEP-2000; 2000US-023499PP 27-SEP-2000; 2000US-023499PP 29-SEP-2000; 2000US-023499PP 29-SEP-2000; 2000US-023499PP 29-SEP-2000; 2000US-023499PP 29-SEP-2000; 2000US-023499PP 29-SEP-2000; 2000US-0236346P 20-CCT-2000; 2000US-0236349P 20-CCT-2000; 2000US-0236339P 20-CCT-2000; 2000US-0236539P 20-CCT-2000; 2000US-0236523P 20-CCT-2000; 200
         $\frac{\pi}{\pi} \text{$\frac{\pi}{\pi} \text{$\pi} ``

the endocrine polypeptides of the invention Bndocrine polypeptides and the endocrine polypeptides of the invention are useful in the endocrine polypeptides of the invention are useful in the diagnosis, treatment and prevention of various types of disorders in e.g. the invention are useful in the diagnosis, treatment and prevention of various types of disorders in e.g. humans, mice, rabbits, goats, horses, cats, dogs, chickens or sheep. A pathological condition can be determined by determining the presence or absence of a mutation in an endocrine polymucleotide. The treatable disorders include autoimmune diseases such as rheumatoid arthritis, hyperproliferative disorders such as cardiac arrest, carebrovascular and isorders such as cardiac arrest, carebrovascular disorders such as corneal infection, endocrine disorders such as corneal infection, endocrine disorders such as corneal infection, endocrine disorders such as corneal infection, endocrine disorders such as corneal infection, endocrine disorders such as corneal infection, endocrine disorders such as corneal infection, endocrine disorders such as corneal infection, endocrine disorders such as asthema. The polypeptides can also be used to respiratory disorders such as asthema. The polypeptides can also be used as a food additive or preservative to increase or decrease storage capabilities. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WiPO at AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 300 TATGITGCAGITAGCTGGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC 180 877 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 936 361 TITECTICAATICIGICTICATCCTGACCCTCGGCCTCATCGCACTGGGACGCTACCTC 420 CTCATTGCCCACCCTAAGCTTTTCCCCAAGTGTTCAGTGCCAAGGGGATAGTGCTGGCA 480 637 ArgregaAcaccrercacccaAcrrerecrecraccarcaccargacrererecres 1 TIGAAIGCIAGGIICIGAIICCCICITICCICICCACCCICIGCCICITIAGCCICIAIC 60 ACCCTACTGGCCTTGGCCATCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT Isolated polypeptide for treating, preventing and/ or prognosing disorders of the endocrine system such as reproductive disorders, endocrine cancers and also for testing and detection e.g. diagnosis. ,0 Query Match 99.6%; Score 1306; DB 5; Length 2046; Best Local Similarity 100.0%; Pred. No. 0; Matches 1306; Conservative 0; Mismatches 0; Indels 0. Claim 1; SEQ ID NO 463; 604pp; English 181 241 121 301 ò g ò g ò a ઠે d ò

```
SC,
 Barash
 17-JAN-2001; 2001US-00764893
 2000US-0251869P
 Ruben SM,
 ROSEN C A.
RUBEN S M.
BARASH S C.
 WPI; 2002-665432/71
 US2002086330-A1
 11.-UUL-2000)
12.-UUL-2000)
13.-UUL-2000)
14.-UUL-2000)
15.-UUL-2000)
16.-UUL-2000)
17.-UUL-2000)
18.-UUL-2000)
18
 08-DEC-2000;
08-DEC-2000;
08-DEC-2000;
 Homo sapiens
 Rosen CA,
 (ROSE/)
 (BARA/)
1200
 createadcaccreegrigieseschesccaecrirecreeccreegecraritarare 1116
 1176
 1236
 1296
 1356
 1416
 1476
 1536
 1020
 1596
 1080
 1656
 1140
 1716
 1776
 1260
 1836
 540
 600
 999
 720
 780
 840
 006
 960
 Immunostimulant, antirheumatic; antiarthritic; neuroprotective, antiallergic; antidiabetic; antiasthmatic; antiinflammatory; noorropic; immunosuppressive; anticoagulant; thrombolytic; antiatherosclerotic; cytostatic; nephrotropic; antiparkinsonian; gynecological; virucide; antibacterial; antiarrhythmic; fungicide; HCFATOS; HWAAE95; HTNBMO1;
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCTTTGCTCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCTCATGGGCATCTACTTTGTGCTTGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 ATCCACCCCAGGTCAAACGAGCACAGCACTGGACCAATACAAGTTGCGACAGGCA
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 GCTGCCACCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACCATCCCCCTTCTTGCTGCTCCAACATT
 <u> AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG</u>
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 crosardecadactecadecreecaderecreecarderrecraecadecadecree
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC
 Novel human nucleic acid SEQ ID No 130.
 ABT07831 standard; DNA; 2046
 14-NOV-2002 . (first entry)
 1297
 1021
 1057
 541
 1117
 601
 1177
 661
 1237
 721
 781
 1357
 841
 1417
 901
 1477
 961
 1537
 1597
 1081
 1657
 1141
 1717
 1201
 1777
 1261
 1837
 ABT07831,
 σ
 RESULT
 g
 \dot{\delta}
 q
 ò
 g
 Ś
 g
 ò
 임
 ò
 q
 à
 g
 ठे
 임
 ò
 d
 à
 g
 8
 d
 g
 ò
 à
 음
 à
```

```
immunodeficiency, autoimmune disorder; allergic reaction, cardiovascular; inflammatory condition; graft-versus-host disease; reproductive system; blod-related disorder; hyperproliferative; endocrine; neurological; respiratory; renal; infectious disease; gastrointestinal; gene therapy; neuronal; inextonal disorder; neuro-degenerative condition; keratinocyte growth; human; ds.
```

Novel polypeptide useful for diagnosis, prognosis, prevention, and treatment of immune, hyperproliferative, renal, respiratory, cardiovascular, reproductive, endocrine, gastrointestinal and neurological disorders.

Disclosure, Page 296-297; 335pp; English

The invention relates to an isolated polypeptide comprising a sequence at least 90% identical to a full length protein sequence selected from 55 sequences given in the specification sequence of 163, 74 or 140 amino acids fully defined in the specification, or the encoding sequence contained in 49 cDNA clones given in specification e.g. HCFATOS, HWAAB95 or HTMPMO1. The protein and its encoding mucleic acid are useful for condition in a subject and for preventing, treating or ameliorating a medical condition. The protein, its encoding mucleic acid and an isolated antibody that can bind to the protein are useful in treating, preventing, diagnosing and/or prognosing immunodeficiencies, autoimmune disorders, allergia reactions and conditions, inflammatory conditions, preference, or allergia reactions and conditions, inflammatory conditions, preference, endoaries, hyperproliferative disorders, new neurological disorders, endocrine disorders, respiratory disorders, repercently espstem disorders, infectious diseases, and conditions, inflammatory and/or dispnose neuronal damage which occurs in certain characteristics such as body height, welght, pair color, and to increase or decrease storage capabilities, fat content, libid, protein, carbohydrate, vitamins, minerals, cofactors or other nutritional components. The mucleic acid of the invention can be used in gene therapy. This polynucleotide sequence represents one of the novel nucleic acid of the invention can be used in gene

Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;

g ò d

180 360 577 TTGAATGCTAGGTTCTGATTCCCTCTTCCACCCTCTGCCTCTTTAGCCTCTATC 636 120 969 756 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 240 816 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 300 876 TACCTCCACCTGCACTGGCGCACCGGTGCCTTCTGCAGGGTATTTGGGCTCCTCCTT 936 TITGCCICCAATICIGICICCATCCIGACCCICTGCCICATCGCACTGGGACGCTACCTC 420 TITGCCTCCAAITCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC 996 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA 480 9 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC AACCTCACACAGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGTACACC CTCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGCCA 61 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 637 Archegaacaccrcreacecaacrrerecrecraceargaerererecreeserarer TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCCAATGTGCTC TACCTCCACCTGCACCTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT TTGAATGCTAGGTTCTGATTCCCTCTTCCTCTTCCACCCTCTGCCTCTTTAGCCTCTATC . 0 DB 6; Length 2046; 0; Indels Query Match
99.6%; Score 1306; L
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1306; Conservative 0; Mismatches 817 877 757 121 181 241 301 361 937 421

d

ò

엄 ò g

ð

입 ò

ò

| immunosuppressive, antiinflammatory, anti-HIV; antibacterial; vulnerary antiparkinsonian; antisickling; antianeemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | immunosuppressive, antiinflammatory, anti-HIV; antibacterial; vulnerary antiparkinsonian; antisickling; antianeemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <pre>immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antialsickling; antianeemic; antiarthitic; cancer; antirheumatic; hebatotropic; cerebroprotective; antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| antiparkinsonian, antisickling, antianaemic, antiarthritic, cance antirheumatic, hepatotropic, cerebroprotective, antiinflammatory,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | antiparkinsonian, antisickling, antianaemic, antiarthritic, cance antirheumatic, hepatotropic, cerebroprotective, antiinflammatory,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | antiparkinsonian; antisickling; antianaemic; antiarthritic; cance<br>antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <pre>mmunosupressive, annialmamacory; annialman antibacterial; valuerary antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <pre>mmunosupressive, annialmamacory; annialman antibacterial; valuerary antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <pre>immunosuppressive, antlinitammacory; antl-hiv; antlbacterial; vulneraly<br/>antiparkinsonian; antisisting antianaemic; antiarthritic; cancer;<br/>antirheumatic; hebatotrobic; cerebrobrotective; antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| immunosuppressive, antiînflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | immunosuppressive, antiînflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebrobrotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Human, nootropic, neuroprotective, cytostatic, dermatological, virucid<br>immunosuppressive, antiinflammatory, anti-HV, antibacterial, vulnerar<br>antiparkinsonian, antisickling, antianaemic, antiarthritic, cancer,<br>antirheumatic, hepatotropic, cerebroprotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Human; nootropic; neuroprotective; cytostatic; dermatological; virucide<br>immunosuppressive, antiinflammatory; anti-HIV; antibacterial; vulnerary<br>antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer;<br>antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Human; nootropic; neuroprotective; cytostatic; dermatological; virucide<br>immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary<br>antiparkinsonian; antisickling; antianement; antiarthritic; cancer;<br>antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV, antibacterial, vulnerary antiparkinsonian, antisickling, antianaemic; antiarthritic; cancer; antirheumatic; hebatotropic, cerebrobrotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Human polynucleotide SEQ 1D NO 8/5. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; anti-inflammatory; anti-HIV; anti-baccerial; vulnerary antiparkinsonian; antistickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Human polynucleotide SEQ 1D NO 8/5. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; anti-inflammatory; anti-HIV; anti-baccerial; vulnerary antiparkinsonian; antistickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Human polynucleotide SEQ ID NO 8/5. Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV; antibacterial, vulnerary antiparkinsonian, antiinflammatory, antianthritic, cancer, antirheumatic, hebatotropic, cerebroprotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <pre>Human polynucleotide SEQ ID NO 875. Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV, antibacterial; vulnerary antiparkinsonian, antisickling, antianaemic, antiarthritic, cancer, antirheumatic, hepatotropic, cerebroprotective, antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <pre>Human polynucleotide SEQ ID NO 875. Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV, antibacterial; vulnerary antiparkinsonian, antisickling, antianaemic, antiarthritic, cancer, antirheumatic, hepatotropic, cerebroprotective, antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <pre>Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antiacterial; vulnerary antiparkinsonian; antisickling; antianemic; antiarthritic; cancer; antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antilatinfilammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antistickling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antilatinammatory; anti-HIV; antilateriary antiparkinsonian; vulnerary antiparkinsonian; antistickling; antianaemic; antiarthritic; cancer; antilrheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Human polynucleotide SEQ ID NO 875. Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV; antibarcerial, vulnerary antiparkinsonian, antisickling; antianthritic, cancer, antirheumatic, hebatotropic, cerebroprotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antiannemic; antiathritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antiannemic; antiathritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV; antiarthritic, cancer, antiparkinsonian, antisickling, antianaemic, antiarthritic, cancer, antirheumatic, hebatotropic, cerebrobrotective, antiinflammatory,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 09-DEC-2002 (first entry)  Human polynuclectide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antihinflammatory, anti-HIV, antibacterial, vulnerary antiparkinsonian, antisckling, antianaemic; antianticic, cancer, antirheumatic, hepatotropic, cerebroprotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 09-DEC-2002 (first entry)  Human polynuclectide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antihinflammatory, anti-HIV, antibacterial, vulnerary antiparkinsonian, antisckling, antianaemic; antianticic, cancer, antirheumatic, hepatotropic, cerebroprotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <pre>09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV; antibarthritic, cancer, antizhenmani, antisheling; antianthritic, cancer, antizhenmatic, hebatotropic, cerebrobrotective, antiinflammatory;</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV, antibacterial, vulnerary antiparkinsonian, antisickling, antianaemic, antiarthritic, cancer, antirheumatic, hepatotropic, cerebroprotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV, antibacterial, vulnerary antiparkinsonian, antisickling, antianaemic, antiarthritic, cancer, antirheumatic, hepatotropic, cerebroprotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antiarchitic; cancer; antizrhkinsonian; antisickling; antiarchitic; cancer; antizrheumatic; hebatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antihifiammatory; anti-HIV; antibacterial; vulnerary antirharkinsonian; antisckling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antihifiammatory; anti-HIV; antibacterial; vulnerary antirharkinsonian; antisckling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic, neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibarthritic; cancer; antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory; antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antiarchitic; cancer; antirheumatic; hebatotropic; cerebroprotective; antiinflammatory; antirheumatic; hebatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antianaemic; antianticic, cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antianaemic; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ABV84126;  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibarthritic; cancer; antizrheumatic; hebatotropic; cerebrobrotective; antiinflammatory; antizrheumatic; hebatotropic; cerebrobrotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ABV84126; ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HU; antibacterial; vulnerary antiparkinsonian; antisckling; antiannemic; antiannemic; antientics; antirective; antiinflammatory; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ABV84126; ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HU; antibacterial; vulnerary antiparkinsonian; antisckling; antiannemic; antiannemic; antientics; antirective; antiinflammatory; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ABV84126; ABV84126; O9-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antiarchitic; cencer; antirheumatic; hebatotropic; cerebroprotective; antiinflammatory; antirheumatic; hebatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ABU84126 standard; DNA; 2046 BP.  ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, anti-inflammatory; anti-HIV; antibacterial; vulnerary anti-hard; antibacterial; vulnerary anti-hard; antibacterial; valnerary antibenian; antisckling; antienthatic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ABU84126 standard; DNA; 2046 BP.  ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, anti-inflammatory; anti-HIV; antibacterial; vulnerary anti-hard; antibacterial; vulnerary anti-hard; antibacterial; valnerary antibenian; antisckling; antienthatic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ABU84126 standard; DNA; 2046 BP.  ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibarchritic; cancer; antiparkinsonian; antisickling; antianemic; ancer; antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Jur 10 4126 ABV84126 standard, DNA; 2046 BP. ABV84126;  09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antianaemic; antianticic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Jur 10 4126 ABV84126 standard, DNA; 2046 BP. ABV84126;  09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antiinflammatory; anti-HIV; antibacterial; vulnerary antiparkinsonian; antisckling; antianaemic; antianticic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | JLT 10 ABV64126 standard; DNA; 2046 BP. ABV64126; ABV64126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antiarthritic; cancer; antiparkinsonian; antisickling; antianemic; antiarthritic; cancer; antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ABV84126 standard; DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; anti-inflammatory; anti-HIV; anti-barchistic, valuerary anti-parkinsonian; antisckling; antianaemic; antianthritic; carecr; antirheumatic; hepatotropic; cerebroprotective; antianflammatory; antirheumatic;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ABV84126 standard; DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; anti-inflammatory; anti-HIV; anti-barchistic, valuerary anti-parkinsonian; antisckling; antianaemic; antianthritic; carecr; antirheumatic; hepatotropic; cerebroprotective; antianflammatory; antirheumatic;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | JLT 10 ABV84126, ABV84126, O9-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary antiphenenian; antiarthitic; cancer; antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory; antirheumatic; hebatotropic; cerebrobrotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ABV84126 standard; DNA; 2046 BP. ABV84126; ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosupressive; anti-inflammatory; anti-HIV; antibacterial; vulnerary anti-hipsarkinsonian; antisckling; antianaemic; antianticic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ABV84126 standard; DNA; 2046 BP. ABV84126; ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosupressive; anti-inflammatory; anti-HIV; antibacterial; vulnerary anti-hipsarkinsonian; antisckling; antianaemic; antianticic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ALT 10 ABV84126 standard, DNA; 2046 BP. ABV84126;  09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antibarchritic; cancer; antizheumatic; hebatotropic; cerebrobrotective, antiinflammatory; antizheumatic; hebatotropic; cerebrobrotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 44126 48041126 standard, DNA; 2046 BP. ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosupressive, anti-inflammatory; anti-HIV; antibacterial; vulnerary anti-heumatic; hepatotropic; cerebroprotective; antianflammatory; antirheumatic; denoer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 44126 48041126 standard, DNA; 2046 BP. ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic; neuroprotective; cytostatic; dermatological; virucide immunosupressive, anti-inflammatory; anti-HIV; antibacterial; vulnerary anti-heumatic; hepatotropic; cerebroprotective; antianflammatory; antirheumatic; denoer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  JUT 10  34126  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antiartitic; cancer; antirhenmatic; hebatotropic; cerebroprotective; antiarthitic; cancer; antirheumatic; hebatotropic; cerebroprotective; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  JLT 10  48126  ABV84126 standard, DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide fimunosupressive, antihinfiammatory; anti-HIV; antibacterial; vulnerary antipackinsonian; antisckling; antianaemic; antianthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory; anticheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  JLT 10  48126  ABV84126 standard, DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide fimunosupressive, antihinfiammatory; anti-HIV; antibacterial; vulnerary antipackinsonian; antisckling; antianaemic; antianthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiinflammatory; anticheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAGTGGC 1882  MAU26 ABV84126 standard, DNA, 2046 BP. ABV84126, 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive, antiinflammatory, anti-HIV; antibartic; cancer, antiphenmani, nichtingickling; antianthritic; cancer, antitheumatic; hebatotropic; cerebrobrotective, antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1261 CCIAGITCACCAGAATICAGGACTGTCTCTCAGGACCAAAGTGC 1300  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGC 1882  MA126  ABV84126 standard, DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antiinfinammatory; anti-HIV; antibacterial; vulnerary antiinfinammatory; antianthutic; cancer; antiinfinammatory; antianthutic; cancer; antirheummatic; hepatotropic; cerebroprotective; antianfilammatory; anticheummatic; hepatotropic; cerebroprotective; antiinflammatory; anticheummatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1261 CCIAGITCACCAGAATICAGGACTGTCTCTCAGGACCAAAGTGC 1300  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGC 1882  MA126  ABV84126 standard, DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive, antiinfinammatory; anti-HIV; antibacterial; vulnerary antiinfinammatory; antianthutic; cancer; antiinfinammatory; antianthutic; cancer; antirheummatic; hepatotropic; cerebroprotective; antianfilammatory; anticheummatic; hepatotropic; cerebroprotective; antiinflammatory; anticheummatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1261 CCTAGTCACAGAATTCAGGACTGTCCTCCAGGACCAAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  MA126  ABU84126 standard, DNA, 2046 BP.  ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide immunosuppressive; antiinflammatory; anti-HIV; antiarthritic; cancer, antifrheumatic; hebatotropic, cerebrobrotective, antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  JLT 10  4126  ABU84126 standard, DNA; 2046 BP.  ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosupressive; antilinfiammatory; anti-HIV; antibacerial; vulnerary antipackinsonian; antisickling; antianaemic; careerial; valnerary antipackinsonian; antisickling; antianaemic; careerial; antianaemic; antilinfiammatory; antirheumatic; careerial; antianaemic;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  JLT 10  4126  ABU84126 standard, DNA; 2046 BP.  ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosupressive; antilinfiammatory; anti-HIV; antibacerial; vulnerary antipackinsonian; antisickling; antianaemic; careerial; valnerary antipackinsonian; antisickling; antianaemic; careerial; antianaemic; antilinfiammatory; antirheumatic; careerial; antianaemic;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  JLT 10  4126  ABU84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosuppressive; antiinflammatory; anti-HIV; antiarthritic; cancer; antixheumatic; hebatotropic; cerebrobrotective; antiarthritic; cancer; antixheumatic; hebatotropic; cerebrobrotective; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1261 CCTACTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306   1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1261 CCTACTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306   1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1261 CCTAGTCACCAGAATTCAGGACTGTCCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antiinflammatory; antiarthritic; cancer; antipheumatoic; hepatotropic; cerebrobrotective; antiarthritic; cancer; antitheumatoiry;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 11 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  JLT 10 48126 ABV84126 standard; DNA; 2046 BP. ABV84126 standard; DNA; 2046 BP. ABV84126 standard; DNA; 2046 BP. ABV84126; 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human; nootropic; neuroprotective; cytostatic; dermatological; virucide immunosupressive; antiinfilammatory; anti-HIV; antibacterial; vulnerary antiberkinsonian; antisickling; antianaemic; antianfilammatory; antibermatic; hepatotropic; cerebroprotective; antiinflammatory; anticheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1777 TATGGCTCCATTTAAAAAGAGGCCCCGGAGTTTCCATAGGACTGTGAC 1833 1261 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAAAGTGGC 1306 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 ABV84126 standard; DNA; 2046 BP. ABV84126 standard; DNA; 2046 BP. ABV84126; O9-DEC-2002 (first entry) Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antibflammatory; antiarthritic; cancer; antibearkinsonian; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiarthritic;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1777 TATGGCTCCATTTAAAAAAGAGGGCCCCGAATTCCATAGGACTCTGAT 1838  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  MAN 126  ABV84126 standard; DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary; antishenmatory; antiarthritic; cancer; antishelmmatory; antishelmmatory; antishelmmatory; antishelmmatory; antishelmmatory; antishelmmatory; antishelmmatory; antishelmmatory; antishelmmatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1777 TATGGCTCCATTTAAAAGGGGCCCCGGAGTTTCCATAGGACTCTTGGACT 1838  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1382  LLT 10  54126  ABV84126 standard, DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive, antiinflammatory; antiarthritic; cancer; antiinflammatory; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1777 TATGGCTCCATTTAAAAGGGGCCCCGGAGTTTCCATAGGACTCTTGGACT 1838  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1382  LLT 10  54126  ABV84126 standard, DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive, antiinflammatory; antiarthritic; cancer; antiinflammatory; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1777 TATGGCTCCATTTAAAAGGGGCCCCGGAGTTTCCATAGGACTGTGGC 1839 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 ABV84126 standard, DNA, 2046 BP. ABV84126, 09-DEC-2002 (first entry) Human polynucleotide SEQ ID NO 875. Human, nootropic, neuroprotective, cytostatic, dermatological, virucide, immunosuppressive, antiinflammatory, antianflammatory, antianflammatory, antianflammatory, antianflammatory, anticheumatoic, hepatotropic, cerebrobrotective, antiinflammatory,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1201 TATGGTTCATTTTAAAAAAAGGCCCCGAAGTTTCCATAAGGCTCCATTAGAACTGTTGA 126  1777 TATGGCTCACTTTTAAAAAAAGGCCCCGAAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1810 ABUS 126  ABUS 4126  ABUS | 1201 TATGGTTCATTTTAAAAAAAGGCCCCGAAGTTTCCATAAGGCTCCATTAGAACTGTTGA 126  1777 TATGGCTCACTTTTAAAAAAAGGCCCCGAAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1810 ABUS 126  ABUS 4126  ABUS | 1201 TATGGCTCCATTTTAAAAAGAGGCCCGGAGTTTCCATAGGCTCCTTAGAACTTGGACTCTGTGAC 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGACTCTTGAC 126  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  ABV84126 standard; DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary; anti-heumatic; henatotropic; cerebrobrotective; antiinflammatory; antitarthritic; cancer; antiinflammatory; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1201 TATGGCTCCATTTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTCTGAC 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTCTGAC 1830  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGGACCAAAGTGGC 1806  1837 CCTAGTCACCAGAATTCAGGACTGTTCTCCTCCAGGACCAAAGTGGC 1882  JLT 10  ABV84126 standard; DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppresslve; antiafinflammatory; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1201 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGACTCTGAC 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGACTCTGAC 126  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGACCAAAGTGGC 1805  1261 CCTAGTCACCAGAATTCAGGACTGTTCTCCTCCAGGACCAAAGTGGC 1882  LLT 10  54126  ABV84126 standard; DNA; 2046 BP.  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide; antiarthistic; cancer; antityeumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antityeumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1201 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTCTGAC 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTCTGAC 183  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGGACCAAAGTGGC 1862  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  1MINININININININININININININININININININ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1201 TATGGCTCCATTTTAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGGACTGTGCC 126  1777 TATGGCTCCATTTTAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGGACTGTGC 126  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACTCATTAGAACTGTGC 183  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  ABV84126  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126;  O9-DEC-2002 (first entry)  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; antiparkinsonian; antisifianmemic; antiarthitic; cancer; antipheumatic; hepatotropic; cerebroprotective; antiarthitic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthitic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthitic; antitheumatic;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1201 TATGGCTCCATTTTAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGGACTGTGCC 126  1777 TATGGCTCCATTTTAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGGACTGTGC 126  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACTCATTAGAACTGTGC 183  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  ABV84126  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126;  O9-DEC-2002 (first entry)  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; antiparkinsonian; antisifianmemic; antiarthitic; cancer; antipheumatic; hepatotropic; cerebroprotective; antiarthitic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthitic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthitic; antitheumatic;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1201 TATGGCTCCATTTTAAAAGGGCCCCGGAGTTCCATAGGGTCCCTTAGGACTCTGGC 126  1777 TATGGCTCCATTTTAAAAGGGCCCCGGAGTTTCCATAGGACTCTGGC 126  1777 TATGGCTCCATTTTAAAAGGGCCCCGGAGTTTCCATAGGACTCTGGC 126  1261 CCTAGTCACCAGAATTCAGGACTGTCTCTCTCCTCCAGGACCCATTAGGAACTGTGGC 1833  1277 TATGGCTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antiinflammatory; antiatthritic; cancer; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1717 CTCAATGGTTGCATCAACCTTGTGTGCACGATGAACGCCAATTCGGCCAATTCGGCCAACTTTTTAAAAAGCGCCCCGAAGTTTCCATAAGCCCAATTCGGCCAACTTTTTTAAAAAGAGGCCCCGGAGTTTTCCATAGGCTCCATTAGAACTGTGCTGCTGTGTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1717 CTCAATGGTTGCATCAACCTTGTGTGCACGATGAACGCCAATTCGGCCAATTCGGCCAACTTTTTAAAAAGCGCCCCGAAGTTTCCATAAGCCCAATTCGGCCAACTTTTTTAAAAAGAGGCCCCGGAGTTTTCCATAGGCTCCATTAGAACTGTGCTGCTGTGTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1717 CTCAATGCTCCATTTTAAAAGCTCTCTATGCAGCCATGAACCCCAATTCCGCCAACTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1717 TATGGCTCCATTTTAAAAGGGCCCGGAGTTTCCATAGGCCCAATTCGGCCAAGGC 126  1717 TATGGCTCCATTTTAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGC 126  1717 TATGGCTCCATTTTAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGC 126  1261 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  ABV84126  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126;  O9-DEC-2002 (first entry)  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; antiparkinsonian; antisiflammatcry; antisathritic; cancer; antipheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1717 TATGGCTCCATTTTAAAAGGGCCCGGAGTTTCCATAGGCCCAATTCGGCCAAGGC 126  1717 TATGGCTCCATTTTAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGC 126  1717 TATGGCTCCATTTTAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGC 126  1261 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  ABV84126  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126 standard; DNA; 2046 BP.  ABV84126;  O9-DEC-2002 (first entry)  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; antiparkinsonian; antisiflammatcry; antisathritic; cancer; antipheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer; antitheumatic; hepatotropic; cerebroprotective; antiarthritic; cancer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1217 TATGGCTCATTTAAAACAGGCCCGGAGCTTGAACGCCATTAGAACTGCAGCA 177  1201 TATGGCTCATTTTAAAACAGGCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGCA 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 183  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126,  ABV84126,  O9-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antiinflammatory; antiatathritic; cancer; antitheumatory; antitheumatory; antitheumatory; antitheumatory; antitheumatory; antitheumatory; antitheumatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1141 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGGCAATGAACGGCCAATTCCGCCAAGCA 120  1717 CTCAATGGTTGCAACACCTGTGCTCTATGCAGGCCAATGAACGGCCAATTCCGCCAAGCA 177  1201 TATGGTTGCATTTTAAAAAGAGGGCCCGGAGTTTCCATAGGACTCGCCAATTCCGCCAAGCA 177  1201 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1141 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGGCAATGAACGGCCAATTCCGCCAAGCA 120  1717 CTCAATGGTTGCAACACCTGTGCTCTATGCAGGCCAATGAACGGCCAATTCCGCCAAGCA 177  1201 TATGGTTGCATTTTAAAAAGAGGGCCCGGAGTTTCCATAGGACTCGCCAATTCCGCCAAGCA 177  1201 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126;  09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1141 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGACCACAAAACGCCAATTCCGCCAAGCA 120  1717 CTCAATGGTTGCAACACCTGTGCTCTATGCAGACCGCCAATTCCGCCAAGCA 177  1201 TATGGTTGCACTCAACCTGTGCTCTATGCAGACGCCCAATTCCGCCAAGCA 177  1201 TATGGCTCCATTTTAAAAAGAGGGCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1777 TATGGCTCACTTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  DLT 10  ABV84126 standard; DNA; 2046 BP.  ABV84126; 09-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; vinucide; immunosuppressive; antiinflammatory; antiarthritic; cancer; antiinflammatory; antiarthritic; cancer; antiinflammatory; antiarthritic; cancer; antiinflammatory; antiarthritic; cancer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 177  1717 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 177  1201 TATGGCTCCATTTAAAAACAGGGCCCCGGAGTTTCCATAGGATCTGAACTGTGAC 183  1261 CTTAGTTCACCAGAATTCAGGACTGTCTCCTCCATAGGCTCCATTAGAACTGTGAC 183  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126  ABV84126  ABV84126  ABV84126  O9-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide; antiarthistic; cancer; antiarthistic; cancer; antiarthistic; cancer; antiarthistic; antiarthistic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiarthitic; cancer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 177  1717 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 177  1201 TATGGCTCCATTTAAAAACAGGGCCCCGGAGTTTCCATAGGATCTGAACTGTGAC 183  1261 CTTAGTTCACCAGAATTCAGGACTGTCTCCTCCATAGGCTCCATTAGAACTGTGAC 183  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126  ABV84126  ABV84126  ABV84126  O9-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic; neuroprotective; cytostatic; dermatological; virucide; antiarthistic; cancer; antiarthistic; cancer; antiarthistic; cancer; antiarthistic; antiarthistic; cancer; antirheumatic; hepatotropic; cerebroprotective; antiarthitic; cancer;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1141 CTCRATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 170 1717 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 177 1201 TATGGCTCCATTTAAAAACAGGGCCCCGGAGTTTCCATAGGACTCTTCGCCAAGCA 183 1261 [                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1657 CTGGATGCCAGAGTCCACGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG 171  1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATTGCTGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCTAACGCTCCATTAGAACTCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCTCATAGACTCCCAACTCCCCAAGACTCCAACTCCCCAACTCCCCAAGACTCCCATTAGAACTCTCATAGACTCCATAGACTCCATTAGAACTCTCATAGACTCCATAGACTCCATTAGAACTCTCAACTCCCTCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1657 CTGGATGCCAGAGTCCACGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG 171  1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATTGCTGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCTAACGCTCCATTAGAACTCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCTCATAGACTCCCAACTCCCCAAGACTCCAACTCCCCAACTCCCCAAGACTCCCATTAGAACTCTCATAGACTCCATAGACTCCATTAGAACTCTCATAGACTCCATAGACTCCATTAGAACTCTCAACTCCCTCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1657 CTGGATGCCAGAGTCCACGGGTGGTCCACATGCTTGCTGCCAACCTCACTGG 171  1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCT 20  1717 CTCAATGGTTGCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 177  1201 TATGGCTCCATTTTAAAACAGGGCCCCGGAGTTTCCATAGGACTCTGCAGCA 177  1201 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 183  1261 CCTAGTCACCAGAATTCAGGACTGCTCCTCCAGGACCCAATGGAACTGTGAC 183  1277 TATGGCTCACTTTTAAAAAGAGGCCCCGGAGTTTCCATAGGACTGTGAC 183  1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882  ABV84126,  ABV84126,  O9-DEC-2002 (first entry)  Human polynucleotide SEQ ID NO 875.  Human, nootropic, neuroprotective, cytostatic, dermatological, virucide, immunosuppressive, antiinflammatory; antiatathritic, cancer, antiinflammatory; antiatathritic, cancer, antiinflammatory; antiatathritic, cancer, antiinflammatory; antiatheumatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory; antiinflammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1657 CTGGATGCCAGGTCCCCGGGTGCTCCALATGCTTGCTCCCAACTCCTCACCTGG 171  1141 CTCAATGGTTGCATCAACCCTGGCTCTATGCAGCCATGACCTCCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCGCCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCCCCAACTCGCCCCAACTCCCCCAACTCCCCCAACTCGCCCCAACTCGCCCAACTCCCCCAACTCCCCCAACTCGCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTC | 1657 CTGGATGCCAGGTCCCCGGGTGCTCCALATGCTTGCTCCCAACTCCTCACCTGG 171  1141 CTCAATGGTTGCATCAACCCTGGCTCTATGCAGCCATGACCTCCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCGCCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCCGCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCGCCCAACTCCCCAACTCGCCCCAACTCCCCCAACTCCCCCAACTCGCCCCAACTCGCCCAACTCCCCCAACTCCCCCAACTCGCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTCAACTC | 1657 CTGGATGCCAGGTCCCCGGGTGTCTCTTTTTTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1141 CTGAATGGTTGGATCCAGGGTGGTCCACAATGCTTGCTGCCAACCTCGG 171  1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCAATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1141 CTGAATGGTTGGATCCAGGGTGGTCCACAATGCTTGCTGCCAACCTCGG 171  1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCAATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1141 CTCAATGGTTGCAGGTCCCGGGGTGGTCCACAATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1081 CTGGATGCCAGAGTCCAGGGTCGACATGCTTGCTGCCAACCTCACCTGG 114 1657 CTGGATGCCAGAGTCCAGGGTCCACGGTTCGATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1081 CTGGATGCCAGAGTCCAGGGTCGACATGCTTGCTGCCAACCTCACCTGG 114 1657 CTGGATGCCAGAGTCCAGGGTCCACGGTTCGATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1081 CTGGATGCCAGAGTCCCGGGTCGACGTCCACATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1081 CTGGATGCCAGAGTCCAGGTCCACAGTGCTTGCTGCCAACCTCACCTGG 114 1657 CTGGATGCCAGAGTCCAGGCTCCCGGGTGCTCACATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1081 CTGGATGCCAGAGTCCAGGTCCACAGTGCTTGCTGCCAACCTCACCTGG 114 1657 CTGGATGCCAGAGTCCAGGCTCCCGGGTGCTCACATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1081 CTGGATGCCAGAGCTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG 114  1657 CTGGATGCCAGAGTCCAGGCTCCCGGGTGGTCCACATGCTGCCAACCTCACCTGG 171  1141 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGCTGAACCGCCAATTCCGCCAAGCA 120  1717 CTCAATGGTTGCATCAACCTTGTGCTCTATGCAGCCATTAGAACTGTGCA 127  1201 TATGGCTCCATTTTAAAAAGAGGCCCCGAGTTTCCATAGGCTCCATTAGAACTGTGCA 126  1777 TATGGCTCCATTTTAAAAAGAGGCCCCGAGATTCCATAGGACTCATTAGAACTGTGC 183  1261 CCTAGTCACCAGAATTCAGGACTCTCTCCTCCATAGGCTCCATTAGAACTGTGC 183  1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306  Human polynucleotide SEQ ID NO 875.  Human polynucleotide SEQ ID NO 875.  Human; nootropic; neuroprotective; cytostatic; dermatological; virucide; immunosuppressive; antiinflammatory; antiatathritic; cancer; antiinflammatory; antiatathritic; cancer; antiinflammatory; antiathematory; antiathammatory; antiathammatory; antiathammatory; antiathammatory;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1597 TGTTTTGCTGTTTTGCCCTGAGCTAATCCCCTTTTGCTGTTTTGCTGTTTTGCTGTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTGTTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1597 TGTTTTGCTGTTTTGCCCTGAGCTAATCCCCTTTTGCTGTTTTGCTGTTTTGCTGTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTGTTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1597 TGTTTTGCTGTTTTGCCCTGAGCTACCCTTGCTTTGCCCTAGCTACATTTTGCTGTTCACATTTTGCTGTTTTGCTGTTTTGCCTGAGCTTGCTGTTGCTGTTTGCTGTTTGCTGTTTGCTGTTTGTTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1597 TGTTTTGCTGTTTCTTTGCTTTTGCCCTGAGCTACTCTTTTTGCTGTTGTTGCTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGCTGTTTTGTGTTGCTGTTGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1597 TGTTTTGCTGTTTTGCTTTGCCTTGGTTTGCTTTGCTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1597 TGTTTTGCTGTTTCTCTGTTTTGCCCTAGCTAGCTTTTGCTCTTTTGCTGTTGTTGCTGTTGTTGCTGTTGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1091 CTGGATGCCAGAGTCCCCGAGGTCCCTAGCTTCTTGCTCTTCTCTCAACATT 165  1081 CTGGATGCCAGAGTCCAGGTCCCCGAGGTCACCTTCTTGCTCTCTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1091 CTGGATGCCAGAGTCCCCGAGGTCCCTAGCTTCTTGCTCTTCTCTCAACATT 165  1081 CTGGATGCCAGAGTCCAGGTCCCCGAGGTCACCTTCTTGCTCTCTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1997 TGTTTTGCTGTGTTCCTCTGCTTTGCCCCGAGCTACCTCTTGCTGCTCCTCAACTT 165  1081 CTGGATGCCAGAGTCCAGGCTCCCGGGTGCTCCCTTCTTGCTGCTCCTCACCTT 165  1081 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGCTCCACCTTGCTGCTGCTCCACCTCGG 114  1657 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGCTCACCTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1021 TGTTTTGCTGTTTCTCTTGCTTTTGCCCTTGAGCTACATCCCTTTTGCTGCTCCAACATT 108 11597 TGTTTTGCTGTTTTCTCTGAGCTTTGCCCTGAGCTACCCCTTTGCTGCTGCTACACATT 165 1081 CTGGATGCCAGGGTCCAGGCTCCCGAGCTACCCCTTGCTGCTGCTCACCTGG 114 11657 CTGGATGCCAGAGTCCAGGCTCCCGGGTGGTCCACTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1021 TGTTTTGCTGTTTCTCTTGCTTTTGCCCTTGAGCTACATCCCTTTTGCTGCTCCAACATT 108 11597 TGTTTTGCTGTTTTCTCTGAGCTTTGCCCTGAGCTACCCCTTTGCTGCTGCTACACATT 165 1081 CTGGATGCCAGGGTCCAGGCTCCCGAGCTACCCCTTGCTGCTGCTCACCTGG 114 11657 CTGGATGCCAGAGTCCAGGCTCCCGGGTGGTCCACTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1021 TGTTTTGCTGTTTTCTCTTGCTTTTGCCCTTGAGCTACATCCCCTTCTTGCTGCTCAACATT 108 11597 TGTTTTGCTGTTTTCTCTGTTTTGCCCTGAGCTACCCCTTCTTGCTGCTGCTCAACATT 165 1081 CTGGATGCCAGGTTCCTCTGTTTTGCCCTGAGCTACCCCTTCTTGCTGCTCTCAACATT 165 1081 CTGGATGCCAGGTTCCAGGCTCCCGGGTGGTTCCTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1021 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 108                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1021 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 108                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1021 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCCAACATT 108 1597 TGTTTTGCTGTTTCTCTCTGCTTTGCCCTGAGCTACCTCTTGCTGCTGCTCCTCGTGTT 165 1081 CTGGATGCCAGAGTCCAGGCTCCCGGGTGCTCCACCTTGTTGCTGCTCCTCCTGG 114 1657 CTGGATGCCAGAGTCCAGGCTCCCGGGTGGTCCACCTTGCTGCTACTCACCTGG 117 1141 CTCAATGGTTGCATCAACCCTGGTTGCTGCTGTTGCTGCCAACTCCACCTGCAACTCCGCCAAGCA 120 1717 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCAATTCCGCCAAGCA 177 1201 TATGGCTCCATTTAAAAAGAGGGCCCCGGAGTTTCCATAGGAACTCGCCAAGCA 177 1201 TATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAGGACTGGCAAGCA 177 1201 TATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAGGACTGTGC 183 1261 CCTAGTCACCAGAATTCAGGACCTGTCCTCCAGGACCCATTAGAACTGTGAC 183 1261 CCTAGTCACCAGAATTCAGGACTGTCCTCCCAGGACCCATTAGAACTGTGAC 183 127 TATGGCTCCATTTAAAAAGAGGCCCCGGAGTTTCCATAGGACTGTGAC 183 12837 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAAAGGGC 1882 ABV84126  ABV84126  Human polynuclectide SEQ ID NO 875.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1537 ATTAAAGGAGCCAGAAGATCCTCAGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159  1021 TGTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACCCCTTCTTGCTGCTCAACATT 108  11597 TGTTTTGCTGTTTCCTCTGCTTTGCCTGAGCTACCTCCTTCTTGCTGCTCAACATT 165  1081 CTGGATGCCAGAGTCCAGGTTCCCCGGGTGCTCCACTTCTTGCTGCTCACCTGG 114  11657 CTGGATGCCAGAGTCCAGGTTCCCCGGGTGGTCCACTTGCTGCCAACTTCACCTGG 171  1161 [                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1537 ATTAAAGGAGCCAGAAGATCCTCAGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159  1021 TGTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACCCCTTCTTGCTGCTCAACATT 108  11597 TGTTTTGCTGTTTCCTCTGCTTTGCCTGAGCTACCTCCTTCTTGCTGCTCAACATT 165  1081 CTGGATGCCAGAGTCCAGGTTCCCCGGGTGCTCCACTTCTTGCTGCTCACCTGG 114  11657 CTGGATGCCAGAGTCCAGGTTCCCCGGGTGGTCCACTTGCTGCCAACTTCACCTGG 171  1161 [                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1537 ATTAAAGGAGCCAGAAGATCCTCAGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159  1021 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACACTCTTCTGCTGCTCAACATT 108  1597 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACACTCCCTTCTTGCTGCTCAACATT 105  1081 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCACTCTTGCTGCTCACCTGG 114  1657 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1537 ATTRAAGGAGCCAGAAGTCCTCTCTTCATCGGATTTGCTGCAGATCTGGATCTGTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1537 ATTRAAGGAGCCAGAAGTCCTCTCTTCATCGGATTTGCTGCAGATCTGGATCTGTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1537 ATTRAAGGAGCCCGGATTCTTCATCGGAATTTGGCGAACCTGGACTCGAATT 108  1021 GTTTTGCTGTTTCTTCTTCTTTGCTTGCTTTGCTGCTCAACATT 108  11597 TGTTTTGCTGTTTCTTCTTGCTTTTGCCTGAGCTACCTTCTTGCTGCTCAACATT 108  1081 CTGGATGCCAGAGTCCAGGCTCCCGGGTGGTCACCTTCTTGCTGCTCAACATT 105  1081 CTGGATGCCAGAGTCCAGGCTCCCGGGTGGTCCATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1537 ATTAAAGGAGCCAGAAGACTCCAGATTCTTCATCGGAATTTGCGAACTCGAATG 159  1021 TGTTTGCTGTTTCCTCTTGCTTTGCCCTCAGAATTTGCGAACTCACACATT 108  1597 TGTTTTGCTGTTTCCTCTTGCTTTGCCCTCAGCTACCCTTCTTGCTGCTCAACATT 105  1081 CTGGATGCTGAAGTCCAGGTCCCCGGGTGGTCCATCCTTGCTGCTCACCTGG 114  1657 CTGGATGCTCAACTCACCCTGGTTCTTGCAGCTCCATGATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1537 ATTAAAGGAGCCAGAAGACTCCAGATTCTTCATCGGAATTTGCGAACTCGAATG 159  1021 TGTTTGCTGTTTCCTCTTGCTTTGCCCTCAGAATTTGCGAACTCACACATT 108  1597 TGTTTTGCTGTTTCCTCTTGCTTTGCCCTCAGCTACCCTTCTTGCTGCTCAACATT 105  1081 CTGGATGCTGAAGTCCAGGTCCCCGGGTGGTCCATCCTTGCTGCTCACCTGG 114  1657 CTGGATGCTCAACTCACCCTGGTTCTTGCAGCTCCATGATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1537 ATTANAGGAGCCAGAAGACTCCGGATTCTTCTTCTTCTTCTTCTTCTTCTTCTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 961 ATTAAAGGAGCCAGAAAGGCCCGGATTCTCATCGGAATTTGGGAAGGTGACTCGAATG 102 1537 ATTAAAGGAGCCAGAAAGAGCTCCGGATTTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 1021 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACACCCCTTTTGCTGCTGCTCAACATT 108 1597 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTTGCTGCTGCTCAACATT 165 1597 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTCACTCTTTTGCTGCTGCTCAACATT 165 1657 CTGGATGCCAAGTCCAGGGTCCCCGGGTGCTCACACTCTTGCTGCTCACCTCGG 171 1141 CTCAATGGTTGCAGAGTCCAGGGTCCTATGCAGCTCCACACTTGCTGCCCAACCTCAGG 171 1141 CTCAATGGTTGCATCAACCCTGTGCTTATGCAGCTCCACATTGCTGCCCAACCTCAGG 171 1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCTCGCCAATTCGGCCAAGTG 177 1201 TATGGCTCCATTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126 1777 TATGGCTCCATTTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126 1837 CCTAGTCACCAGAATTCAGGACTGCTCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B416 Standard; DNA; 2046 BP. ABV84126; ABV84126; ABV84126; CTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84 | 961 ATTAAAGGAGCCAGAAAGGCCCGGATTCTCATCGGAATTTGGGAAGGTGACTCGAATG 102 1537 ATTAAAGGAGCCAGAAAGAGCTCCGGATTTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 1021 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACACCCCTTTTGCTGCTGCTCAACATT 108 1597 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTTGCTGCTGCTCAACATT 165 1597 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTCACTCTTTTGCTGCTGCTCAACATT 165 1657 CTGGATGCCAAGTCCAGGGTCCCCGGGTGCTCACACTCTTGCTGCTCACCTCGG 171 1141 CTCAATGGTTGCAGAGTCCAGGGTCCTATGCAGCTCCACACTTGCTGCCCAACCTCAGG 171 1141 CTCAATGGTTGCATCAACCCTGTGCTTATGCAGCTCCACATTGCTGCCCAACCTCAGG 171 1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCTCGCCAATTCGGCCAAGTG 177 1201 TATGGCTCCATTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126 1777 TATGGCTCCATTTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 126 1837 CCTAGTCACCAGAATTCAGGACTGCTCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B37 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 1B416 Standard; DNA; 2046 BP. ABV84126; ABV84126; ABV84126; CTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882 ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84126; ABV84 | 961 ATTAAAGGAGCCAGAAAGGCCCGGAATTGCGAATTTGGAAAGTGAACGGAATG 192 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 1021 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACACTCTTGCTGCTCAACATT 165 1597 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACACCTCTTGCTGCTCAACATT 165 1081 CTGGAAGGCCAGAGTCCAGGCTCCCGGGTCGACTCACTCTTTTTGCTGCTCACACTT 165 11841 CTGCAAGGTCCAGGTCCAGGCTCCCGGGTCCACACTTGCTGCTCACCTCGC 171 11841 CTCCAATGGTTGCATCAACCCTGGTTGCTAGCACACTTGCCCAACCTCACCTGG 171 11941 CTCCAATGGTTGCATCAACCCTGTGCTCATGCAGCTCCAATGCCCAACCTCACTGG 177 1201 TATGGCTCCATTTAAAAAAGCGCTCCAGAGTTCCAATAGGCTCCATTAGAACTGTCAC 126 1777 TATGGCTCCATTTTAAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTCAC 126 1777 TATGGCTCCATTTTAAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTCAC 126 1777 TATGGCTCCATTTTAAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTCAC 126 1777 TATGGCTCCATTTTAAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTCAC 126 1777 TATGGCTCCATTTTAAAAAAGGGCCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTCAC 126 1777 TATGGCTCCATTTTAAAAAAGGGCCCCCGGAGTTTCCATCAGGCCCCATTAGAACTGCAC 126 1777 TATGGCTCCATTTTAAAAAAGGGCCCCCGGAGTTTCCATAGGCTCCATTAGAACTGCAC 126 1777 TATGGCTCCATTTTAAAAAAAGGGCCCCCGGAGTTTCCATAGGCTCCATTAGAACTGCAC 126 1777 TATGGCTCCATTTTAAAAAAAGGGCCCCCGGAGTTTCCATAGGCTCCATTAGAACTGCAC 126 1777 TATGGCTCCATTTTAAAAAAAGGGCCCCCGGAGTTTCAAATTCCACAGGCCCAGGACCAGAGTGCCCAGGACCAATTCCACAGGCTCCAGAGTGCCAATTCCACAGGCTCAGAGTGCCAATTCCACAGGACTCAGAGTGCCAATTCCACAGGACTCAGAGTGCCAATTCAGAGTGCCAATTCAATTAGAATTCAAATTAGAATTAAAAAAAA                                                                                                                                                                                                |
| 961 ATTAAAGGACCAGAAAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 102 11537 ATTAAAGGACCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 11597 ATTAAAGGACCCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATT 108 11597 TGTTTTGCTGTTTCTCTGCTTTGCCTGAGGTACATCCCCTTCTTGCTGCTCAACATT 108 11597 TGTTTTGCTGTTTCTCTGCTTTGCCTCGAGGTACATCCCCTTCTTGCTGCTCAACATT 108 11657 TGTTTTGCTGTTTCTCTGCTTTGCCTCGAGGTACACCCCTTCTTGCTGCTCAACATT 105 11657 CTGGATGCCAGAGTCCAGGTCCCCGGGTGGTCCAATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 961 ATTAAAGGACCAGAAAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 102 11537 ATTAAAGGACCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 11597 ATTAAAGGACCCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATT 108 11597 TGTTTTGCTGTTTCTCTGCTTTGCCTGAGGTACATCCCCTTCTTGCTGCTCAACATT 108 11597 TGTTTTGCTGTTTCTCTGCTTTGCCTCGAGGTACATCCCCTTCTTGCTGCTCAACATT 108 11657 TGTTTTGCTGTTTCTCTGCTTTGCCTCGAGGTACACCCCTTCTTGCTGCTCAACATT 105 11657 CTGGATGCCAGAGTCCAGGTCCCCGGGTGGTCCAATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 961 ATTAAAGGACCAGAAAGGCTCCGGATTCTTCATCGGAATTGGGAAGGTGACTCGAATG 102 11537 ATTAAAGGACCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 11597 ATTAAAGGACCCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATT 108 11597 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTTCCTCTTGTTGCTGCTCCAACATT 105 11081 CTGGATGCCAGAGTCCAGGTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCCAACATT 105 11081 CTGGATGCCAGAGTCCAGGTTTGCCCTGAGCTTGCTCCCTTCTTGCTGCTCAACATT 105 11091 CTGGATGCCAGAGTCCAGGTTCCCCGGGTGGTTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 102 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 1021 TGTTTGCTGTGTTCCTCTGGTTTGCCCTGAGTTGCTGCTCCTCAACATT 108 1597 TGTTTGCTGTGTTCCTCTGGTTTGCCCTGAGTTGCTGCTCCTAACATT 165 1081 CTGGATGCCAGAGTCCAGGTTTGCCCTGAGTTGCTCCCTTTTGTGCTCCCAACATT 165 1081 CTGGATGCCAGAGTCCAGGTTCTTGCTCCAACATTGCTGCTCAACATT 165 1081 CTGGATGCCAGAGTCCAGGCTCCCGGGTTGCTTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 102 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 1021 TGTTTGCTGTGTTCCTCTGGTTTGCCCTGAGTTGCTGCTCCTCAACATT 108 1597 TGTTTGCTGTGTTCCTCTGGTTTGCCCTGAGTTGCTGCTCCTAACATT 165 1081 CTGGATGCCAGAGTCCAGGTTTGCCCTGAGTTGCTCCCTTTTGTGCTCCCAACATT 165 1081 CTGGATGCCAGAGTCCAGGTTCTTGCTCCAACATTGCTGCTCAACATT 165 1081 CTGGATGCCAGAGTCCAGGCTCCCGGGTTGCTTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 91 ATTANAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 102 1537 ATTANAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 159 1021 TGTTTTGCTGTGTTCCTCTGGTTTGCCCTGAGTTTGGGAAGGTGCTCCAACTT 168 1597 TGTTTTGCTGTGTTCCTCTGGTTTGCCCTGAGTTGCTGCTTCTTGCTGCTCCAACTT 168 1597 TGTTTTGCTGTGTTCCTCTGGTTTGCCCTGAGCTCCCTTTTGCTGCTCCCAACTT 168 1597 TGTTTTGCTGTGTTCCTCTGGTTTGCCCTGAGCTCCCTTTTGCTGCTCCCAACTT 165 1081 CTGGATGCCAGAGTCCAGGCTCCCGGGTTGCTCCCTTTTTGCTGCTCACTTGT 165 1141 CTCCAATGGTTGCACACCCTGGTTGCTCTAGGCTCCAATTCGCCAACCTCAGGT 170 1141 CTCCAATGGTTGCATCAACCCTGTGCTCTATGCAGCTCGCCAATTCGGCCAAGCA 177 1201 TATGGCTCCATTTAAAAAAGAGGGCCCCGGAGTTTCCAATGGCCCAATTCGGCCAAGCA 177 1201 TATGGCTCCATTTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGACTGTGAC 126 1177 TATGGCTCCATTTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGACTGTGAC 126 11837 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAATTCGGCCAAGCA 177 1201 GCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAATTCGGCCAAGCA 177 1201 TATGGCTCCATTTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGACTGTGAC 126 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1802 1262 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1802 1277 TATGGCTCCATTTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGACTCCATTAGAACTGTGAC 126 1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1802 1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1802 1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1802 1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1802 1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1803 1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1803 1281 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1803 1281 CCTAGTCACCAGAATTCAGGACTCTCTCCAGGACCAAATTCCACAGGACTAAAGTGGC 1803 1281 CCTAGTCACCAGAATTCAGGACTCTTAAAAAAAGAGGGCCCAAATTCCACAGGACTAAAAAAAA                                                                                                                                                                                                                                                                                                                                                                       |
| 1477 AAGAGACCAGAGAGAGAGAGAGAGAGAGAGCCTCCAGAGCCTCCCAAAGCCCCACCA IS3 961 ATTAAAGGACCCCAGAAGACCCCGGATTCTCATCGGAATTTGGGAACTCGAACTCGAACTG IS2 1537 ATTAAAGGACCCAGAAGAGCTCCGGATTCTCATCGGAATTTGGGAACTCGAACTT IO8 1021 TGTTTTGCTGTTCCTCTCTCTTTGCTCTTTCATCGGAATTTGGGAACTCGAACTT IO8 1021 TGTTTTGCTGTTCCTCTCTCTTTGCTCTTTGCTCCTTTTGCTGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1477 AAGAGACCAGAGAGAGAGAGAGAGAGAGAGCCTCCAGAGCCTCCCAAAGCCCCACCA IS3 961 ATTAAAGGACCCCAGAAGACCCCGGATTCTCATCGGAATTTGGGAACTCGAACTCGAACTG IS2 1537 ATTAAAGGACCCAGAAGAGCTCCGGATTCTCATCGGAATTTGGGAACTCGAACTT IO8 1021 TGTTTTGCTGTTCCTCTCTCTTTGCTCTTTCATCGGAATTTGGGAACTCGAACTT IO8 1021 TGTTTTGCTGTTCCTCTCTCTTTGCTCTTTGCTCCTTTTGCTGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1477 ÀAGAGACCAGAGAGAGAGAGAGAGACCCTCCAGAGCATCTCCCAAAGCCCACCA IS3 961 ATTAAAGGACCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTCACTCGAATG 102 1537 ATTAAAGGAGCCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTCACACATT 108 1597 TGTTTTGCTGTTCCTCTGGTTTTGCCTGAGTTCTCTTGGTGCTCCAACATT 165 1081 CTGGATGCCAGAGTCCAGGTTCTTTGCCCTCAACATT 165 1081 CTGGATGCCAGAGTCCAGGTTCTTTGCCCCAACATTCTGCTGCTCAACATT 165 1081 CTGGATGCCAGAGTCCAGGTTCCTTTGCCCCAACACTCTGCTCAACATT 165 1141 CTCAATGGTTCCTCTGCTTTGCCCTGAGTTGCTCCAACACTCGCTAACACTTGCTTAACACACTCAACACTTGCTCCAACACTTGCTAACACTCAACACTTAAAAAGAGCCCCCAGAGTCCAACACTCCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACTCAACACCCCCAAATCCCACAACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1477 AGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1477 AGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1477 AGAGAGCTAAGCAGATGCAGAAAGCCTCCCAGAAGCATCCCAAAGCCCAGCAGA 153 961 ATTAAAGCACACAAAGAGCTCCGAATTCTCATCGAAATTGGGAAGCTCACAATT 108 1537 ATTAAAGGACCCAGAAGAGCTCCGGAATTCTCATCGAAATTTGGGAACTCGAATT 108 1529 TGTTTTGCTGTTCCTCTGGTTTGCTCTCAGATTTTGTTGCTCCTCAAAATT 108 1529 TGTTTTGCTGTTCCTCTGGTTTGCCCTCAGATTTTGTTGCTCCTCAAAATT 108 1529 TGTTTTGCTGTTCCTCTGGTTTGCCCTCAGATTTCTGTTGCTCCTCAAAATT 108 1520 TGTTTTGCTGTTCCTCTGGTTTGCCCTCAGGTACATCCCTTTTTTGTTGCTCCTCAAAATT 108 1521 TGTTTTGCTGTTCCTCTGGTTTGCCCTCAGGTTCCTCTTGTTGCTCCTCAAAATT 108 1522 CTGGATGCCAGAGTCCAGGTCCCCGGGTGGTCCAATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1477 AAGAAGCCAGAAAACCAGAAAAAGCCCCCAGAAAGCTCTGCCAAAACCCAGCCA 153  961 ATTAAAGCAGCCAGAAAACCCGGAATTCTCATCGGAATTTGCGAACCCGAATG 159  1021 TGTTTTGCTGTTCCTCTGCTTTGCTCTTCATCGGAATTTGCGAACTTGCTGAATT 168  1021 TGTTTTGCTGTTCCTTGCTTTGCTCTTGCTTGCTCTTTGCTGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1477 AAGAAGCCAGAAAACCAGAAAAAGCCCCCAGAAAGCTCTGCCAAAACCCAGCCA 153  961 ATTAAAGCAGCCAGAAAACCCGGAATTCTCATCGGAATTTGCGAACCCGAATG 159  1021 TGTTTTGCTGTTCCTCTGCTTTGCTCTTCATCGGAATTTGCGAACTTGCTGAATT 168  1021 TGTTTTGCTGTTCCTTGCTTTGCTCTTGCTTGCTCTTTGCTGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1477 AAGAAGCCAGAAAGCCTGGAATTTCATCACCAGAATTTGGGAACGCCAGCCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 901 AAGAGAGCAAATGCCAAGAAAACCCTCCAGAACCATTGCCAAAGCCCCCAGCAGC 960 1477 AAGAGAGCTAAGCAAATGCCAGAAAACCCTCCAGAACCATTGCCAAAGCCCAGCCAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 901 AAGAGAGCAAATGCCAAGAAAACCCTCCAGAACCATTGCCAAAGCCCCCAGCAGC 960 1477 AAGAGAGCTAAGCAAATGCCAGAAAACCCTCCAGAACCATTGCCAAAGCCCAGCCAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 901 AAGAGAGCTAAACCAAGAGAAAACCCTCCAAAACCACCACCAACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 901 AAGAGAGCTAAGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 960 1477 AAGAGAGCTAAGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 153 961 ATTAAAGGACCAGAAGACTCCGGAAAAGCCCTCCAGAAGTTTGGCAAAGCCCAGCCA 153 1597 TATTAAAGGAGCCAGAAAGACTCCGGAATTCTCATCGCAAACTTTGGCAAAGCTCACACAT 108 1597 TGTTTTGCTGCTTCTCTTGCTTTGCTCGAATTTGGGAAGGTGACTCACACAT 108 1597 TGTTTTGCTGCTTCTCTTGCTTTGCTCTGCTACACACTT 108 1597 TGTTTTGCTGCTGTTCTCTTGCTTTGCTCGAAACTTGCTGCTCAACATT 108 1597 TGTTTTGCTGTGTTCTCTTGCTTTGCTCTGCTCCTCACACATT 108 11081 CTGGATGCCAGAGTCCAGGTTGCTCTGGTTCCTCTTGCTGCTCAACACTT 108 11091 CTGGATGCCAGAGTCCAGGTTGCTCTTGCTGCTCACACACTCACCTGG 171 1107 CTCAATGGTTGCATCACCTGTTTTGCTGCTCACACTTAGTTGCTGCTACACTTGCTGCTACACTTGCTGCTACACTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 901 AAGAGAGCTAAGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 960 1477 AAGAGAGCTAAGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 153 961 ATTAAAGGACCAGAAGACTCCGGAAAAGCCCTCCAGAAGTTTGGCAAAGCCCAGCCA 153 1597 TATTAAAGGAGCCAGAAAGACTCCGGAATTCTCATCGCAAACTTTGGCAAAGCTCACACAT 108 1597 TGTTTTGCTGCTTCTCTTGCTTTGCTCGAATTTGGGAAGGTGACTCACACAT 108 1597 TGTTTTGCTGCTTCTCTTGCTTTGCTCTGCTACACACTT 108 1597 TGTTTTGCTGCTGTTCTCTTGCTTTGCTCGAAACTTGCTGCTCAACATT 108 1597 TGTTTTGCTGTGTTCTCTTGCTTTGCTCTGCTCCTCACACATT 108 11081 CTGGATGCCAGAGTCCAGGTTGCTCTGGTTCCTCTTGCTGCTCAACACTT 108 11091 CTGGATGCCAGAGTCCAGGTTGCTCTTGCTGCTCACACACTCACCTGG 171 1107 CTCAATGGTTGCATCACCTGTTTTGCTGCTCACACTTAGTTGCTGCTACACTTGCTGCTACACTTGCTGCTACACTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 901 AAGAGAGCTAAGCAGATGGCAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCA 960 1477 AAGAGAGCTAAGCAGATGGCAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCCAGCA 153 961 ATTAAAGGACCAGAAGACTCCGGATTCTTCATCGGAAGCTTCGCCAAGCCCCAGCA 102 1537 ATTAAAGGACCCAGAAGACTCCGGATTCTTCATCGGAATTTGGGAAGTTCCTCAACATT 108 1597 TGTTTTGCTGTGTTTTCCTCGTTTTTCATCGGAATTTGGGAAGGTGACTCGAATT 165 1597 TGTTTTGCTGTGTTTTCCTCGTTTTTCATCGGAATTTGGGAAGGTGACTCGAATT 165 11081 CTGGATGCCAGAAGACCCCGGGTTCCTCAAACATCCCTTCTTCTTCTTCTTCTTCTTCTTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 901 AAGAGACTAAGCAGAAAAAACCCCTCCAGAAGCATCTGCCAAAGCCCCACCA 960 1477 AAGAGACTAAGCAGAAAAAAACCCCTCCAGAAGCATCTGCCAAAGCCCCAGCCA 153 1617 AAGAGACCAAAAACACAAGAAAAAACCCTCCCAAAACATTTGCAAACTCCCAACTC 102 1537 ATTAAAGGACCCAAAAACACCCTGAATTTCCAAACTTTGCTAACTCCAACTT 108 1597 ATTAAAGGACCCAAAAACACCCTGAATTTCAATCGCAATTTGCTAACATT 108 1597 TGTTTTGCTGTTTCCTTGCTTTGCTCTTGAACTCCCTTCTTTGCTGAACTTCAACATT 165 1081 CTGGATGCTGAGATCCAGGCTCCCGGGTACTCTAACCCTTTTGCTGCTCAACATT 165 1181 CTGGATGCTAGGTTCCTTGCTTTGCTCACATGCTTGCTGCCAACTCACCTCGC 114 11657 CTGGATGCTAGGTTCCACGGGTCCCGGGGTGCTCACATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 901 AAGAGACTAAGCAGAAAAAACCCCTCCAGAAGCATCTGCCAAAGCCCCACCA 960 1477 AAGAGACTAAGCAGAAAAAAACCCCTCCAGAAGCATCTGCCAAAGCCCCAGCCA 153 1617 AAGAGACCAAAAACACAAGAAAAAACCCTCCCAAAACATTTGCAAACTCCCAACTC 102 1537 ATTAAAGGACCCAAAAACACCCTGAATTTCCAAACTTTGCTAACTCCAACTT 108 1597 ATTAAAGGACCCAAAAACACCCTGAATTTCAATCGCAATTTGCTAACATT 108 1597 TGTTTTGCTGTTTCCTTGCTTTGCTCTTGAACTCCCTTCTTTGCTGAACTTCAACATT 165 1081 CTGGATGCTGAGATCCAGGCTCCCGGGTACTCTAACCCTTTTGCTGCTCAACATT 165 1181 CTGGATGCTAGGTTCCTTGCTTTGCTCACATGCTTGCTGCCAACTCACCTCGC 114 11657 CTGGATGCTAGGTTCCACGGGTCCCGGGGTGCTCACATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 901 AAGGAGGTAAGCAGAAAAAAGCCCTCCCAAAAGCATCTGCCAAAGCCCCAGCA 960 1477 AAGAGAGCTAAGCAGAAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 153 961 ATTAAAGCAGCCAAAGACACAGAAAAAGCCCTCCAGAATTTGGGAATTTGCGAACCTCCAATGCTGATG 102 1537 ATTAAAGCAGCCCAAAGACCCCGGATTCTTCATCGGAATTTGGGAACGTCCAATG 159 1021 TGTTTTGCTGTTCCTCTGCTTTGCTCGAATTCTCACCAATTTGGGAACGTCAACATT 168 1597 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 168 1597 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTCACACATT 168 1597 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTCACACATT 165 1081 CTGAATGCTTGCTCAGCTCCCGGGGTGCTCCACATGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1417 GCTGCCACCACCACCACCACCACCACCACCACCACCACACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1417 GCTGCCACCACCACCACCACCACCACCACCACCACCACACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1417 GCTGCCACCACCCACACCCTGAAAGGGAATCATCAAAAGTGAAAGAACCAAACCCAGCCA 960 1477 AAGAGGCTAAGCACAGAGACACAGAAAACCCTCCACAAGCCCCAGCCA 960 1477 AAGAGGCTAAGCACAGAGACAGAAAAAACCCTCCACAAGCCCCAGCCA 153 961 ATTAAAGGAGCCCAGAAAAAAGAGACCTCCAGAATTTGGAAAGCCCAGCCA 153 1537 ATTAAAGGAGCCCAGAAAAAACGCATCTTCATCGAAATTTGGAAAGCCCAGCCA 153 1537 ATTAAAGGAGCCCAGAAGACTCCCGGATTCTTCATCGGAATTTGGAAGCTCCAAAGCCCAGCCA 165 1537 ATTAAAGGAGCCCAGAAGCCCCGGATTCTTCATCGGAATTTGGAAGCTCCAACTGTGTGTTCCTCTGCTTTGCTCTTCCTCTCAATTTGGAAATTTCCTGCTTTGCTTTCTTCTTCTTCTTCTTCTTCTTCTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1417 GCTGCACCACCACCACCAGACCCAGACCTCATCAGAAGTGGAGACCAGATCAACGC 147,  901 AAGGAGCTAAGCAGTGGCAGAAAAAGCCCTCCAGAAGTCCCAAAGCCCACA 153  1477 AAAGGACCTAAGCAGTGGCAGAAAAAGCCCTCCAGAAGCTCCCAAAGCCCACA 153  961 ATTAAAGGAGCTAAGAGAGCACCAGATTCTTCATCGGAATTTGGGAAGCTACCTCCAATG 152  1537 ATTAAAGGAGCCAGAGAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGCTCCAATT 108  1021 TGTTTTGCTGTTTCCTCTGCTTTGCTTGCTTGCTTGCTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1417 GCTGCCACCACCACCACCACCACACCCACACACCACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1417 ĠĊTĠĊĠĊĠĊĠĠĊĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1417 GCTGCAACCACACCACGACCTGGAAACTCCTCAACACTCCAACACCACACTCAACTCCAACCCACACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1417 GCTGCAACCACACCACGACCTGGAAACTCCTCAACACTCCAACACCACACTCAACTCCAACCCACACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1417 GCTCCACCACCACCACCCCGACCCCCCCACACCCCCACACCCCCACCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1417 GCTGCCACCACCCGACCCTGGAAGGGGACTCATCAGAAGTGGAACCAGATCACAGC 147,  901 AAGAGGCTAAGCACCCTGGAAGGGGAAAACCCTCCAGAAGCTCCCAAAGCCCAGCCA 960  1477 AAGAGAGCTAAGCAAGCAGAAAAACCTCCCAGAAGCATCTGCCAAAGCCCAGCCA 153  961 ATTAAAGGACCTAAGCACAGAAAAACCTCCCGAAAGCCTCCCCAAAGCCCAGCCA 153  1537 ATTAAAGGACCTCCGGATTCTTCATCCAGAAGCATCTGCCAAAGCCCAGCCA 153  1021 TGTTTGCTGTTTCTCTCTGCTTTTCACCTTTCACACTTTTGGAAGGTCCCAAACTT 165  1597 TGTTTTGCTGTTTCTCTTCTTCTTCTTCACCTTTCTCTTCTTCTTCTTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1417 GCTGCCACCACCCGACCCTGGAAGGGGACTCATCAGAAGTGGAACCAGATCACAGC 147,  901 AAGAGGCTAAGCACCCTGGAAGGGGAAAACCCTCCAGAAGCTCCCAAAGCCCAGCCA 960  1477 AAGAGAGCTAAGCAAGCAGAAAAACCTCCCAGAAGCATCTGCCAAAGCCCAGCCA 153  961 ATTAAAGGACCTAAGCACAGAAAAACCTCCCGAAAGCCTCCCCAAAGCCCAGCCA 153  1537 ATTAAAGGACCTCCGGATTCTTCATCCAGAAGCATCTGCCAAAGCCCAGCCA 153  1021 TGTTTGCTGTTTCTCTCTGCTTTTCACCTTTCACACTTTTGGAAGGTCCCAAACTT 165  1597 TGTTTTGCTGTTTCTCTTCTTCTTCTTCACCTTTCTCTTCTTCTTCTTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1417 GCTGCCACCACCCAGCCCGCAGCGCGCAGCGCAGCAGCAGATCACAGC 147,  901 AAGGGCTAAGCCAGCCGCAGCGGGAAAAGCCCCAGAAGCCCAGATCACAGC 163,  1477 AAGGGCTAAGCCAGTGGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 563,  1477 AAGGGCTAAGCAGAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 153,  1537 ATTAAAGGACCAGAAGAGACCCCGATTCTTCATCGGAATTTGGGAAGCTGCCAACTT 108  1537 ATTAAAGGACCAGAAGAGACCCCGGATTCTTCATCGGAATTTGGCAGCTCCAACTT 165  1537 ATTAAAGGACCCAGAAGAGACCCCGGATTCTTCATCGGAATTTGGCAGCTCCAACATT 165  1537 ATTAAAGGACCCAGAAGCCCCCGGATTCTTCATCGGAATTTGGCAGCTCCAACATT 165  1021 TGTTTTGCTGTTTCCTCTTGCTTTCTTCATCGGAATTTGGCAGCTCCAACATT 165  1021 TGTTTTGCTGTTTCCTTCTTCTTCTTCATCGGAATTTTGGCAGCTCAACATT 165  1031 CTCAATGGTTCCTCTTCTTCTTCATCGGAATTTCCTTCTCTCTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 14.7 AGAGGCCAGCCAGCCAGCAGGCAGGCACCAGCAGGAGCAGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 14.7 AGAGGCCAGCCAGCCAGCAGGCAGGCACCAGCAGGAGCAGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 14.7 AAGAGCCAACCACCAGCAGCAGCACCACCAGAACTACAGAACTACCAGAACTACCAGACCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 841 GCTGCCACCACCACCACGAGGGGACTCATCAGAGTGGGACCACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 841 GCTGCCACCACCACCACGAGGGGACTCATCAGAGTGGGACCACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 841 GCTGCCACCACCACCACGAAGCGGAACTCATCAGAAGTGGGAACCAGATCACACG OOD 1417 GCTGCCACCACCCACCCACCACGAAGCGGAACTCATCAGAAGTGGGAACCAGATCACACGC 147, 1417 GCTGCCACCACCCACCCAGAACGGGAACACCACACACCCCAGATCACGC 153 1417 AAGAGACTAAGCAGATGGCAGAAAAGCCCTCCAGAAGCTCTCCCAAAGCCCACCACA 153 1417 AAGAGACTAAGCAGATGGCAGAAAAAGCCTCCAGAAGCTTCTCCCCAAAGCCCACACA 153 1517 AAGAGACTAAGCAGAACACCAGAAAAACCCTCCAGAAGCTTCTCCCCAAAGCCCACACA 153 1517 ATTAAAGAACCAGAACACCCCAGAAACTTCCCAGAAGTTCCCAAAGTT 108 1518 ATTAAAGAACCAGAACACCCCAGAACTACACACTCCTTCTTCTTCTTCTTCTTCTCTACACATT 108 1519 TGTTTTGCTGTTTCTCTTTTTTTCTTTTTTTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 841 GCTGCCACCACCACCACGAACGCGAACTCATCACAACTCGGAACTCATCACAC 900 1417 GCTGCCACCACCCACACCCTGAACGCGAACTCATCACAACTCGAACTCAACCCC 147 901 AACAGACCTCACCACCCTGCAACGCGAACTCACAACTCAACCCC 910 1477 AAGAGACCTAACCATGCAACACACACACACCCAACCCAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 841 GCTGCCACCACCACCACGAACGCGAACTCATCACAACTCGGAACTCATCACAC 900 1417 GCTGCCACCACCCACACCCTGAACGCGAACTCATCACAACTCGAACTCAACCCC 147 901 AACAGACCTCACCACCCTGCAACGCGAACTCACAACTCAACCCC 910 1477 AAGAGACCTAACCATGCAACACACACACACCCAACCCAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 841 GCTGCCACCACCACCAGAACGCGAACCCTGGAAGGGGAACTCATCAGAAGTGGGAACCCGATTATACACACTTATACAGAAGTGGAACCCAGATCCACACCTTATCAGAAGTGGGAACCCAGATCAACCCTGAAGTGCACACCCTGGAAGGCGCACCCTGGAAGGCCCAGATCCACACCCTGAAGCCCCAGATCCACACCCTGAAGCCCCAGATCAACCCCAGATCAAGCCCAAGCCCAGAAGCCCAGAAGCCCAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCCAGAAGCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAAGCCCCCAGAACCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 841 GCTGCCACCACCACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 841 GCTGCCACCACCACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 841 GCTGCCACCACCACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 137) CLOSACACCACCACACCCTGGAAGGGACTCATCAGAAGTGGAAGACCAGATCACAGG 147, GTGCCACCACACCCAGACCCAGAGGACCAGATCACAGG 147, GTGCCACCACACCCTGGAAGGGACCCACACCCAGATCACAGG 147, GTGCCACCACACACCCTGGAAGGGACTCACAGATCACAGG 147, GTGCCACCACACCCTGGAAGGGACTCACCAGATCACAGG 147, AGCAGAGTAAGCACCTGGAAAAGCCCTCCAGAAGCTTTGCCAAAGCCCACCCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 137) CLOSACACCACCACACCCTGGAAGGGACTCATCAGAAGTGGAAGACCAGATCACAGG 147, GTGCCACCACACCCAGACCCAGAGGACCAGATCACAGG 147, GTGCCACCACACCCTGGAAGGGACCCACACCCAGATCACAGG 147, GTGCCACCACACACCCTGGAAGGGACTCACAGATCACAGG 147, GTGCCACCACACCCTGGAAGGGACTCACCAGATCACAGG 147, AGCAGAGTAAGCACCTGGAAAAGCCCTCCAGAAGCTTTGCCAAAGCCCACCCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1937 CICCACCACCACCACCACCACCACACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1357 CTGGACAGCAGGACCAGGAGGACCCAGTGAGGGGATTCATCAGAGTCAGT 141.  841 GCTGCCACCACCAGACCAGGAGGAAAGGCACTCAGAAGTCAGAAGTCAGAGTCAGT 141.  901 AAGAGAGCTAGCAGACCAGGAGGAAAAGCCCTCAGAAGTGCAGAACCCAGAGCAGACCAGG 960  1477 AGAGAGCTAAGCAGAAAAAGCCCTCAGAAAGTGGCAAGCCCAGAAGCCCAGGAGGAAAGCCACCAGGAGAAAAAGCCCTCAGAAAGCCTCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAAAAGCCCTCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAAAAGCCCTCAGAAAAAAAGCCACCAGAAAAAAAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1357 CTGGACAGCAGGACCAGGAGGACCCAGTGAGGGGATTCATCAGAGTCAGT 141.  841 GCTGCCACCACCAGACCAGGAGGAAAGGCACTCAGAAGTCAGAAGTCAGAGTCAGT 141.  901 AAGAGAGCTAGCAGACCAGGAGGAAAAGCCCTCAGAAGTGCAGAACCCAGAGCAGACCAGG 960  1477 AGAGAGCTAAGCAGAAAAAGCCCTCAGAAAGTGGCAAGCCCAGAAGCCCAGGAGGAAAGCCACCAGGAGAAAAAGCCCTCAGAAAGCCTCAGAAGCCCAGAAGCCCAGAAGCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAAAAGCCCTCAGAAGCCCCAGAAGCCCCAGAAGCCCCAGAAAAAGCCCTCAGAAAAAAAGCCACCAGAAAAAAAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1357 CTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 1357 CTGGARGAGATTAGARGAGAGGAGGAGGAGGAGGAGGAGGAGTTACATTAGAGGAGATTACATCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1357 CTGGARGAGATTAGARGAGAGGAGGAGGAGGAGGAGGAGGAGTTACATTAGAGGAGATTACATCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1357 CTGGARGAGATTAGARGAGAGGAGCCCAGAGGAGGAGTTACATCAGGAGATTACATCTGAGCAGCAGTTAGAGTTAGAGTTAGAGTTAGAGAGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1357 CITGGACACCAGGACACCAGAACCAGAACCAGGACATTACACTAGACCAGGATTACACTAGACCAGATTACACTAGACCAGATTACACTAGACCAGATTACACTAGACCAGATTACACTACTACTACTACTACTACTACTACTACTACTAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1357 CITGGACACCAGGACACCAGAACCAGAACCAGGACATTACACTAGACCAGGATTACACTAGACCAGATTACACTAGACCAGATTACACTAGACCAGATTACACTAGACCAGATTACACTACTACTACTACTACTACTACTACTACTACTAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1357 CTGGACACCAGGTTAGCALCAGAGGACCAGTGAGGGGGATTTCATCTGACCAGTCAGTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1357 [                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1357 [                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1357 CTGGACAGCAGCATCAGCAGCAGCACCAGTGAGGGGATTTCATCAGGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1357 CTGGACGCCCCGGAGGGCCCCACGAGGGGGTTTCTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1357 CTGGACGCCCCGGAGGGCCCCACGAGGGGGTTTCTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1357 CTGGACGCCCCGGAAGGGACCCAGGAGGGGATTTCATCGAAGCCAGTCATT 141.  1417 GGTGCCACCACCCAGACCCTGGAAGGGACTCATCAGAAGTGGAGAACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| THE CTGGACGCGGGTTAGCATCAGGAGGCCCAGTGGGGGGGTTAGTTGGTTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | THE CTGGACGCGGGTTAGCATCAGGAGGCCCAGTGGGGGGGTTAGTTGGTTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | THE CTGGACGGGGTTAGGATGGGGGGGCCCAGTGGGGGGGTTTAGTTGGTGGGGGGTTAGTTGGTGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 1357 CTGGACGACGACTACGACGACCCACTAGACGACATTAGACGACTTATTTGGACACTCACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1357 CTGGACGACGACTACGACGACCCACTAGACGACATTAGACGACTTATTTGGACACTCACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1357 CTGGACGACGACTAGGACCCACTAGGACGATTAGGAGGATTTCTTGAGCCACTCTCTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| THE CTGGACAGGTTAGCATCAGGAGGACCCAGTGAGGGATTTCATTGAGCAGTCATT 840  1357 CTGGACAGCACACACACACAGGAGGACCCAGTGAGGAGGATTTCATCAGCCAGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | THE CTGGACAGGTTAGCATCAGGAGGACCCAGTGAGGGATTTCATTGAGCAGTCATT 840  1357 CTGGACAGCACACACACACAGGAGGACCCAGTGAGGAGGATTTCATCAGCCAGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 181 CTGGACAGCACACACACACACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1810  1817  1817  1818  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819   | 1810  1817  1817  1818  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819  1819   | 181 CTGGACACCAGTTAGCATCAGGAGCACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 181 CTGGACAGCAGGTTAGCATCAGGAGCACCCAGGAGTTTCATCAGCCAGTTAGT 184 GCTGCCACCACCAGACCAGAGCACCCAGGAGGGATTTCATCAGCCAGTTAGT 185 CTGGACAGAGGATAGCATCAGAGGGACTTCATCAGAGGGATTTCATCAGACCAGTTAGT 187 GCTGCCACCACCCGGACCCAGACCCAGAGGGATTTCAGAGGGACTTCACTAGT 187 AAAAAGAGCTAACCAGACAGAAAAGCCCTCACAAGAGCAACCAGATCAACCCAGATCAACCAGAGGAAAAGCCTCACAAGAGCCAAACCCAGAAAGCACCTCACAAGAGCAACCAGAAACCACACAAGAGCAACCAGAAACCAGAAACCACACAAGAAACCACACAAGAACCACAAACCACAAACCACAAACCACAAACCACAAACCACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 181 CTGGACAGCAGGTTAGCATCAGGAGCACCCAGGAGTTTCATCAGCCAGTTAGT 184 GTGCACCACCACCAGACCAGAGCACCCAGTAGGAGGATTTCATCAGCCAGTTAGT 185 CTGGACAGCAGGATAGCATCAGAGGGACTTCATCAGAGGGATTTCATCAGAGCCAGTTAGT 187 GATGCCACCACCAGACCCTGAAGGGACACCAGAGGATTTCATCAGAGCAGATTAGT 187 AAAAGAGCTAAGCAGACAGAAAGGCCTCACAAGAGCAGCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGATCAAGCAGAAGACCCAGATCAAGCAGAAGACCCAGATCAAGCCAGATCAAGCCAGATCAAGCCAGAAGACCCAGATCAAGCAGAAGACCCAGAAGACACCAGAAGAAGACCCAGAAGA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 181 CTGGACAGCAGGTTAGCATCAGGAGCACCCAGGAGGAATTTCATCAGACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1357 CTGGACAGCAGGTTAGCATCAGGAGCACCCAGTGAGGGGATTTCATCAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1357 CTGGACAGCAGGTTAGCATCAGGAGCACCCAGTGAGGGGATTTCATCAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 181 CTGGACACCAGGTTAGCATCAGGAGCACCCAGTAAGGGGATTTCATCAGACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 127 CTGGAAGGAGGTTAGGATCAGGAGGACCAGTGAGGGGATTTCATCGGACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 127 CTGGAAGGAGGTTAGGATCAGGAGGACCAGTGAGGGGATTTCATCGGACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1021 TOTAL CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES CONTROLLES  |
| 1297 AGENTICAACCATCAACAACAAGAAGAACTAATAAAGCAATGACTGATGATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAAGAATTTCAATAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAATAAGAAGAATTAAAGAAGAATTAAAGAAGAATTAAAGAAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1297 AGENTICAACCATCAACAACAAGAAGAACTAATAAAGCAATGACTGATGATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAAGAATTTCAATAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAAGAAGAATTTCAATAAGAAGAATTAAAGAAGAATTAAAGAAGAATTAAAGAAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1297 AGCATCCACTCAACCAGGAGGACCACTGAGGGATTTCATCAGGAGGTTCCAAGAGGT 840  131 CTGGACAGCAGGATTAGCATCAGGAGGACCACTGAGGGGATTTCATCAGGACCACTCAGT 840  132 CTGGACAGCAGGATTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1297 ACATCCACTCAACCATTGCACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1297 ACATCCACTCAACCATTGCACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1297 AGANCACHCACHCANGGAGAACTAATAAAAACCCATGATGATGATGATGATGATGATGATGATTCCAGGAGATTCACAGAGATTACATAACAACCAGATTACATTCAGAACCAGTTACTATAACAACCAGATTACATTCAGAACACCAGTTACTTCAGAACTACTATATAACAACCAGATTACATCAGAACAACAACTACAACAACAACAACAACAACAACAACAACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1297 AGCANCCARTICACANTGGGCAGGACCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1297 AGCANCCARTICACANTGGGCAGGACCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1297 AGCANCCACCACACACATTAGCACATAGCACATAGCACATAGCACATAGCACATACACATACACATAGCACATACACATAGCACATACACATAGCACATACACATAGCACATACACATAGCACATACACATAGCACATACACATAGCACATACACAGCACATACACAGCACATACACACATACACATAGCACATACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1297 AGCATCCAACCACATTACACAGAGACTATATACAGAGCCATGCCTGCTCGTTCCAGAGAGTTTCCAGAGAGTTTCCAGGAGACTACATTACAGAGCCATTACAGTTTCCAGCAGAGACTCATTACAGTTACAGAGAGACCCAGTAGTTTCTCTCAGACCAGTTACAGTTACAGAGAGACCCAGTAGTTACAGAGAGACCCAGTAGTTACAGAGAGATTTCCAGACCAGTTACAGAGAGACCAGTAGTTACAGAGAGACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1297 AGCATCCAACCACATTACACAGAGACTATATACAGAGCCATGCCTGCTCGTTCCAGAGAGTTTCCAGAGAGTTTCCAGGAGACTACATTACAGAGCCATTACAGTTTCCAGCAGAGACTCATTACAGTTACAGAGAGACCCAGTAGTTTCTCTCAGACCAGTTACAGTTACAGAGAGACCCAGTAGTTACAGAGAGACCCAGTAGTTACAGAGAGATTTCCAGACCAGTTACAGAGAGACCAGTAGTTACAGAGAGACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1297 AGCATCCACCTCAACCAGGACACGATTATTATACACCCATGACTCATTCCAGGAGATTTCCAGGAGATTTCCAGGAGATTTCCAGGAGACACGATTTCCAGGAGACACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 1297 AGCANCCACCCCACACANGINGCCACGACCACACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1297 AGCANCCACCCCACACANGINGCCAGGACCAANGAGCCACCAGGACGTICATION 11297 ACCANCCACCCCACCACACAGGACCAANGACGCAGGACCAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACTICACGAGGACCCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGCAGGAGAGCAGGAGAGCAGGAGAGCAGGAGAGGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1297 AGCATCCACTCCAACCATGGAGGACCAACAGGGGAATTCCATCTCTGAGGATTTCCAGGAG 135.  1297 AGCATCCACTCCAACCATGGAGGACCAACAGGGGAATTTCATCTGAGCAATTCCAGGAGT 840  1357 CTGGACAGCAGGTTAGCATCAGGAGGACCCAACAGGAGGCTAACTTCTCTGAGCCAATTCACTGAGT 840  1417 GCTGCCACCACCACCACACCAGGAGGACCCAACAGGAGGATTTCATCTGAGCCAATTCACAGG 100  1417 GCTGCCACCACCACCACACAGGAGGACCCAACAGAGGGAATTTCATCTGAGCCAACTCACAGG 100  1417 AAGAAGAGCTAACACATGGACAGAAAGCCCTCCAAACATCACAACTCACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1297 AGCATCCACTCCAACCATGTGGCCAGGATTTCAGGAG 780 1297 AGCATCCACTCCAACCATGTGGCCAGGATTTCAGGAG 780 1297 AGCATCCACTCCAACCATGTGGCCAGGATTTCATGAGGCTTTCCAGGAG 780 1297 AGCATCCACTCCAACCATGGGCCAGGATTTCATGAGGCCATTTCCAGGAG 135. 1297 AGCATCCACCAGGATTAGCATCAGGAGCACCAGGCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1297 AGCATCCACTCCAACCATGTGGCCAGGATTTCAGGAG 780 1297 AGCATCCACTCCAACCATGTGGCCAGGATTTCAGGAG 780 1297 AGCATCCACTCCAACCATGTGGCCAGGATTTCATGAGGCTTTCCAGGAG 780 1297 AGCATCCACTCCAACCATGGGCCAGGATTTCATGAGGCCATTTCCAGGAG 135. 1297 AGCATCCACCAGGATTAGCATCAGGAGCACCAGGCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1297 AGCATCCACTCCAACCATGTGGGCGAGGATTGAGGCCATGCTGGTGTTTCCAGGAG 780  1297 AGCATCCACTCCAACCATGTGGCCAGGACTAATGAGGCCATGCTTGGTGTTTCCAGGAG 780  1297 AGCATCCACTCCACCACATGGGCCAGGACTAATGAGGCCATGCTTTCCAGGAG 135.  1297 AGCATCCACTCCACACACAGGAGGACCCAGTGAGGCCATGCTTTCACGAGGAGT 740  1207 CTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGCATTTCATCTGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1297 AGCANCCACCCACACACACACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1297 AGCANCCACCCACACACACACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1297 AGCANCCACTCCAACCANTGGGCCAGACTATCAGCCATCGCTCGTTTTCCAGGAG 135.  1297 AGCANCCACTCCAACCANTGGGCCAGACTATCAGGCCATCGCTGTTTTCCAGGAG 135.  1297 AGCANCCACTCCAACCANTGGGCCAGACTAAGAGGCCATTCCTCGAGCCAGTCAGT 340.  1357 CTGGACAGCAGGTTAGCATCAGGAGGACCCAATGAGGGGATTTCTTCTCGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1297 ACCATCCACTCCACACATGGCCAGGACTGATGAGCCCTGCTGGTGGTTCCAGGGG 136.  1297 ACCATCCACTCCAACACATGGCCAGGACTGAGGCCATGCCTGGTGGT 240  135 ACCATCCACTCCAACACATGGCCAGGACATGAGGCCATGCTGTTCCAGGGG 135.  135 CTGGACAGCAGGTTACATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTGT 440  135 CTGGACAGCTAGCAGTTACATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTGT 241  841 GCTGCCACCCAGCAGCTCGAAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTGT 241  141 GCTGCCACCCAGCAGCTGAAGAGCCCAGTGAAGGGATTTCATCAGACCAGATCAACAGC 900  141 AAAGAGCTAACACAAGAGACCCAGAAAAGCCCTCCAGAAGCACCACAAACCCCAGAAGCCCAGAAGCCCAGAAGA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1297 ACCATCCACTCCACACATGGCCAGGACTGATGAGCCCTGCTGGTGGTTCCAGGGG 136.  1297 ACCATCCACTCCAACACATGGCCAGGACTGAGGCCATGCCTGGTGGT 240  135 ACCATCCACTCCAACACATGGCCAGGACATGAGGCCATGCTGTTCCAGGGG 135.  135 CTGGACAGCAGGTTACATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTGT 440  135 CTGGACAGCTAGCAGTTACATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTGT 241  841 GCTGCCACCCAGCAGCTCGAAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTGT 241  141 GCTGCCACCCAGCAGCTGAAGAGCCCAGTGAAGGGATTTCATCAGACCAGATCAACAGC 900  141 AAAGAGCTAACACAAGAGACCCAGAAAAGCCCTCCAGAAGCACCACAAACCCCAGAAGCCCAGAAGCCCAGAAGA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1297 AGCATCCACTCCACACATGACCAGACTAGACGCCATGCCTGCTGTTCCAGGGG 780  1297 AGCATCCACTCCAACCATGTGGCCAGGACTGACGCCTGCTGTTCCTGGGGG 135-  1297 AGCATCCACTCCAACCATGGCAGGACACATGACGCCATGATGATGGTGTTTCCAGGGG 135-  1357 CTGGACAGCTAGCATCACAAGGAGGACCCAATGAGGGGATTTCATCTGAGCCAGTTGAT 141-  811 GCTGCCACCACCCAGCTAGCAACAGGAGGACCCAATGAGGGGATTTCATCTGAGCCAGTTGAT 141-  812 GCTGCCACCACCCAGCAGCAACAGGAGGACCCAATGAGGGGATTTCATCTGAGCCAGTTGAT 141-  813 GCTGCCACCACCCAGCAGACGAAAAAGGGGATTCATCAGAACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 121 AGCATCCACTCCAACCATGTGGCCAGGACTGATGGCCATGCCTGGTCGTTTCCAGGAG 135.  1297 AGCATCCACTCCAACCATGTGGCCAGGACTGATGGCCATGCCTGGTCGTTTCCAGGAG 135.  1207 AGCATCCACTCCAACCATGGCCAGGACTGATGGGCCATGCTCGTTCCAGGAG 135.  1217 CTGGAAAGCAGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 121 AGCATCCACTCCAACCATGTGGCCAGGACTGATGGCCATGCCTGGTCGTTTCCAGGAG 135.  1297 AGCATCCACTCCAACCATGTGGCCAGGACTGATGGCCATGCCTGGTCGTTTCCAGGAG 135.  1207 AGCATCCACTCCAACCATGGCCAGGACTGATGGGCCATGCTCGTTCCAGGAG 135.  1217 CTGGAAAGCAGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 127 AGCATCCACTCCAACCATGTGGCCAGGATGATGAGGCCATGCCTGGTCGTTCCAGGAG 135 1297 AGCATCCAACCCATGTGGCCAGGATGATGAGGCCATGCCTGGTCGTTTCCAGGAG 135 1297 AGCATCCAACCACTGACACGAGGACTGATGAGGCCATTCCAGGAG 135 1317 CTGGAACACCACGAGATTACCAGGAGGACCACTCAGAGGCGATTTCATCGAGCAGTTACAGGAGGATTACAGGAGGATTTCATCGAGCAGTTACAGGAGGATTACAGGAGGATTTCATCGAGCAGTTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGATTACAGGAGGAGAAGAGCCCAGGAGGAGAGAGA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1237 ATCCACCGCCAGGTCAAACCAGGACCAGGACCTGCACCATACACAATACCAACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1237 ATCCACCGCCAGGTCAAACCAGGACCAGGACCTGCACCATACACAATACCAACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1237 ATCOACCCCACCACTATACCACCACCACCACCACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1237 ATCCACCACAGGTCAAACAACAACAACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1237 ATCCACCACAGGTCAAACAACAACAACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1237 ATCCACCACAGCTCAAACAAGACACAGGCACTGCACCAATACAAGTTGCGCACAGCCA 229.  721 AGCATCCACTCCACCATGTGGCCAGGACTGATGCCATGCCATGCTGGTCGTTTCCAGGA 780  1227 AGCATCCACTCCACCATGTGGCCAGGACTGATGGCCATGCCTGGTCGTTTCCAGGA 780  1237 CTGCACACACCATGTGGCCAGGACTCATGAGGCCATGCCTGGTCGTTTCCAGGA 780  1237 CTGCACACACACATTAGCATCAGGAGCACCAAGGGCATTCATCATCAGAGCCATTCAGGAG 780  1247 AGCATCCACCACCACCACACAGGACACCAGGAGCATTCATCAGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1237 AirChéolochainean de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la c | 1237 AirChéolochainean de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la control de la c | 1237 ATCAACACCACAACATCAACAACAACAACAACAACAACAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1237 AITCANCOCCAGACCAGACCAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACACAGGACTACACACAGGACTACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1237 AITCANCOCCAGACCAGACCAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACACAGGACTACACAGGACTACACAGGACTACACAGGACTACACACAGGACTACACACAGGACTACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1217 AICCACCCCACACCACACACCACCACCACCACCACCACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1297 ATCCACCACCACCACACCACCACCACCACACCACACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1297 ATCCACCACCACCACACCACCACCACCACACCACACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1217 ATCCACCCCAGGCAACAGCACCACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1237 AICCACCCCAGATCAACCAGCACCACGCACCAATACATACAGCACCACGCACACGCACACGCACCACACCACCACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1237 AICCACCCCAGATCAACCAGCACCACGCACCAATACATACAGCACCACGCACACGCACACGCACCACACCACCACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1237 AICCACCCAGACACACAGCACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 61 ATCCACCCCAGGTCAAACGACCACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 61 ATCCACCCCAGGTCAAACGACCACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 61 #TCCACCCCAGGTCAAACGAGCACCACAGCACCACGACCATACCAGTCGACCACAGCA 720  1227 ATCCACCCCAGGTCAAACGAGCACCACAGCACACCAGTCGACCAGTTCCAGGCA 720  1227 ATCCACCCCCAGGTCAAACGAGCACCACAGCACACTGGACCAGTTCCAGGCA 720  1227 AGCATCCACTCCCACCCAGTCCAGCACCACAGCACCATTCACCCAGTTTCCAGGCA 780  1227 AGCATCCACCCACCACACTTCACATTCAGCACCCATTCACTCAGTTTTCCAGGAG 780  1227 AGCATCCACCACCACACTCAGCACCACGACCACCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 661 ATCCACCCCCAGGTCAAACCACCACCACCACCCCATCCAATACCACTGCCCACCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 661 ATCCACCCCCAGGTCAAACCACCACCACCACCCCATCCAATACCACTGCCCACCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 661 ATCOLOGICAGOTCARACAGOAGAGAGAGCACTGACCAATACAATAGCACAGCACTTO 1227 ATCACCGCCAGGTCARACAGAGAGAGACAGGCATGGCCAATACAATA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 661 ATCCACCCAGGTCAAACGAGGAGGACTGGACCAAACAAGTGCCAAACTGCCAACAGGCAA 129.  1237 ATCCACCCAGGTCAAACGAGGAGGACTGGACCAAACAACTGCCAACAGGAGGAGGAGGAGGAGGACTGAACCAAACAGTGCCACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 661 ATCCACCCAGGTCAAACGAGGAGGACTGGACCAAACAAGTGCCAAACTGCCAACAGGCAA 129.  1237 ATCCACCCAGGTCAAACGAGGAGGACTGGACCAAACAACTGCCAACAGGAGGAGGAGGAGGAGGACTGAACCAAACAGTGCCACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 661 ATCCACCCAGGTCAAACGAGCACACAGGACTACAAATACAAGTGGCACACAGGAATTACAAGTGGCACACAGGAATTACAAGTGGCACACAGGAATTACAAGTGGCCACACAGGAATTACACATTACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 61 ATCCACCCAGGTCAACCACCACCACCACCAACCACCAACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 61 ATCCACCCAGGTCAACCACCACCACCACCAACCACCAACCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 61 ATCCCCCCAGGTCAACCAGCACCAGGACTCAACCAACCAGCACTCAACCAAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 1177 ATTCHARGACATCHARGACACCAGAGACACAGAGACACATACAGATTGCAGAGAGACATACAGATTCAGAGACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1177 ATTCHARGACATCHARGACACCAGAGACACAGAGACACATACAGATTGCAGAGAGACACAGAGAGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1177 ATTCHATGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1177 ATCCTOATGGGGGTATCTGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1177 ATCCTOATGGGGGTATCTGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1177 ATCCTOATGOSCOLICTACTTGOSCCTGAGGGGGTTGAGGGATGTTGCAATGCTTCTTGTGCTTGGGGCTTGGTTGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1177 ATCCTCATGGGCATCTAGGCACAGGGCATGGACCATGACATTGGACGCT 123  1237 ATCCACCCCAGGTCAAACGACACAGCACAGGCATGGACCATTACAGGTTCCAGGGG 720  1237 ATCCACCCCCAGGTCAAACGACACACAGCACAGGCACTGGACCATTACAGGCACAGGC 720  1237 ATCCACCCCCAACCATGGCCACAGGCACAGGCACTGGACCATTACAGGCATTCAGGAGG 730  1247 AGCATCCACCCCAACCATGGCCACAGGACCCAGTGAGGCATTCATT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1177 ATCCTCATGGGCATCTAGGCACAGGGCATGGACCATGACATTGGACGCT 123  1237 ATCCACCCCAGGTCAAACGACACAGCACAGGCATGGACCATTACAGGTTCCAGGGG 720  1237 ATCCACCCCCAGGTCAAACGACACACAGCACAGGCACTGGACCATTACAGGCACAGGC 720  1237 ATCCACCCCCAACCATGGCCACAGGCACAGGCACTGGACCATTACAGGCATTCAGGAGG 730  1247 AGCATCCACCCCAACCATGGCCACAGGACCCAGTGAGGCATTCATT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1177 ATCCTCATGGGCATCTAACCAGGCACCAGGCACGCAGGCATGGACCATTCCATTGGCTCTCATTGGCTCTCTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 61 ATCOCCCCOACCCACTTOTCTTCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 61 ATCOCCCCOACCCACTTOTCTTCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 661 ATCCACCCACCACTCALACCACCACACCACCACCACTCACCACTTTTCATTTTCATTTTCATTTCATCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 61 MICCOCCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 61 MICCOCCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCOCO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 61 ATCCCCAGGGGATCTACTTGGGGCTCAAAGGGCAAGGATGTTGGGATCTTGGTGTTGGTGTTGGGGTTGTATTGGTGTTGGGGCTGAAAGGGCAAGGGCAAGGATGTTGGGATGTTGGGGCTGAAGGGCAAGGATGTTGGGATGTTGGGGCAAGGATGTTGGGATGTTGGGGCAAGGATGTTGGGATGTTGGAAGGATGTTGGAAGGATGTTGGAAGGATGTTGGAAGGATGTTGGAAGGATGTTGGAAGGAATGTTGGAAGGAAGGAAGAA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 61 ATCCCCAGGGCACTATGCCCTGGCCCAGGCATGGCACTGCAGCATGCCACTCTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 61 ATCCCCAGGGCACTATGCCCTGGCCCAGGCATGGCACTGCAGCATGCCACTCTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1777   ATCCTCAGGGGCATCTGGCTTGGCTTGGCTTGGTTGGTTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 137 AICCICARGAGATCHATTIGGGCTGGGCTGGAGTGTTGGCATCTTCTATTIGCTT 123  1237 AICCCCCCCCCCCAACATCACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 137 AICCICARGAGATCHATTIGGGCTGGGCTGGAGTGTTGGCATCTTCTATTIGCTT 123  1237 AICCCCCCCCCCCAACATCACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 137 ACCOCCAGACACCACACACACACACACACACACACACACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1177 ATCCCACACACACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1177 ATCCCACACACACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ### ### ##############################                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 601 ATCOTOANGGGGATCTACATGCTGGGGATGGATGGGGGTGGGATGGGGGTGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 601 ATCOTOANGGGGATCTACATGCTGGGGATGGATGGGGGTGGGATGGGGGTGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 601 ATCCTCATGGGGGGTCACTTACTTGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 601 ATCOTOANGGGGATCTACTTTGGCTCAGGGGTCAGGAGTGGGGATTTATTGGCTC 120  611 ATCOCAGGGGATCTACTTTGGCTTGGCTCAGGAGTGGGGATTTGATTGGTCAGGGGT 120  1227 ATCCAGGGGATCTACAGGACTGAGGACTGGGGCCATTGGGGGTTGCAGGGGT 120  1227 ATCCAGGGGATCTACAGGACTGAGGACTGGAGCCATTGCAGGGGT 120  1227 AGCATCACACAGCACTGAGGACTGAGGACTGAGGCCATTGCAGGGGT 120  1227 AGCATCACACAGCACTGAGGCAGGACTGAGGCCATTGAGGGGTTTCAGGGGT 120  1227 AGCATCACACACACACACACACACACACATTGAGGACCATTGCAGGGGT 120  1227 AGCATCACACACACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 601 ATCOTOANGGGGATCTACTTTGGCTCAGGGGTCAGGAGTGGGGATTTATTGGCTC 120  611 ATCOCAGGGGATCTACTTTGGCTTGGCTCAGGAGTGGGGATTTGATTGGTCAGGGGT 120  1227 ATCCAGGGGATCTACAGGACTGAGGACTGGGGCCATTGGGGGTTGCAGGGGT 120  1227 ATCCAGGGGATCTACAGGACTGAGGACTGGAGCCATTGCAGGGGT 120  1227 AGCATCACACAGCACTGAGGACTGAGGACTGAGGCCATTGCAGGGGT 120  1227 AGCATCACACAGCACTGAGGCAGGACTGAGGCCATTGAGGGGTTTCAGGGGT 120  1227 AGCATCACACACACACACACACACACACATTGAGGACCATTGCAGGGGT 120  1227 AGCATCACACACACACACACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 601 ATCCTCATGGGCCATTACTTTGTCTTGGCCACGCAGTTGGCACTTTGTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 601 ATCCTCATGGGGATCTACTTGGCTTGGGTTGGCATGGGATTTGCATTTGCATGGGATTTGTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 601 ATCCTCATGGGGATCTACTTGGCTTGGGTTGGGATGTTGGATTTGCTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 601 ATCCTCATGGGGATCTACTTGGCTTGGGTTGGCATGGGATGTTGGCATTGTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 601 ATCCTCATGGGGGATCTACTTGGCTGGGTGGGTGGGATGTTGGGATGTTTGTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 601 ATCCTCATGGGGGATCTACTTGGCTGGGTGGGTGGGATGTTGGGATGTTTGTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1777 ATCCTCATGGGGGATCTACTTGGGGGGGGGGGGGTGGGGGTGGGGGTGGGGGGGTGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 601 ATCCTCATGGGGGATCTACTTGGTGGTGGGGTGGGTGGGGTTGGGGTTGTTTGGCTTTGTTTTTGCTTC 660  1177 ATCCTCATGGGGGATCTACTTGGGTGGGGGGGTGGGGTTGGGATTGTTTGCTTGTATGGCTCTGTTTGGCTTGTGTGGGGGGT 780  1183 ATCCACCGCAGGGCAGGGCAGGGCAGGCAGTGGCATTGGAGTTGCAGGGG 780  1184 CTCACCGCAGGCAGGCAGGCAGGCAGGCAGTGGAGTTGGCATTGCAGGGG 780  1185 CTGACAGCAGCTCAACGAGGCAGGCAGGCATTGAGGCAGTTGAGCAGTTGAGGCAGT 781  1185 CTGACAGCAGGTTACACATGGGCAGGAACTGAGGCAATGAGCAGTGAGTTGAGGCAGTGAGT 800  1181 CTGACAGCAGGTTACACAGGAGGACAGAGCATGAGGCAATGAGCAGTGAGT 781  1185 CTGACACCACCAGGAGGAGAAAAACCCCAGTGAGGAGATTCATCAGAGCAGTGAGT 781  1187 CTGACAGCAGGTTACACAGAGGAGAAAACCCCAGTGAGGAGATTCATCAGAGCAGTGAGT 781  1187 CTGACACACACAGAGAGAGAGAAAAACCCCAGTGAGGAATTCATCAGAGCAGTGAGT 781  1187 ATTAAAGAGACTAACAGAGAGACACAGAGAACTACAGAGAATTCAGACACAGTGATTAACAGCCAGTGAGTAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGCACAATTCAGAGACACAATTCAGAGACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCACACAAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCACACAAATTCAGAGAATTCACACAAATTCAGAGAATTCACACAAATTCAGAGAATTCACACAAATTCAGAAATTCAGACACAATTCACACAAATTCAGAAATTCAGAGAATTCACACAAATTCAGAAATTCAGAGAATTCACACAAATTCAGAAATTCAGAATTCACACAAATTCAGAAATTCAGAAATTCAGAAATTCAGAAATTCACACAAATTCAGAAATTCACACAAATTCACACAAATTCACACAAATTCAGAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAAATTAAAAAA                                                                            | 601 ATCCTCATGGGGGATCTACTTGGTGGTGGGGTGGGTGGGGTTGGGGTTGTTTGGCTTTGTTTTTGCTTC 660  1177 ATCCTCATGGGGGATCTACTTGGGTGGGGGGGTGGGGTTGGGATTGTTTGCTTGTATGGCTCTGTTTGGCTTGTGTGGGGGGT 780  1183 ATCCACCGCAGGGCAGGGCAGGGCAGGCAGTGGCATTGGAGTTGCAGGGG 780  1184 CTCACCGCAGGCAGGCAGGCAGGCAGGCAGTGGAGTTGGCATTGCAGGGG 780  1185 CTGACAGCAGCTCAACGAGGCAGGCAGGCATTGAGGCAGTTGAGCAGTTGAGGCAGT 781  1185 CTGACAGCAGGTTACACATGGGCAGGAACTGAGGCAATGAGCAGTGAGTTGAGGCAGTGAGT 800  1181 CTGACAGCAGGTTACACAGGAGGACAGAGCATGAGGCAATGAGCAGTGAGT 781  1185 CTGACACCACCAGGAGGAGAAAAACCCCAGTGAGGAGATTCATCAGAGCAGTGAGT 781  1187 CTGACAGCAGGTTACACAGAGGAGAAAACCCCAGTGAGGAGATTCATCAGAGCAGTGAGT 781  1187 CTGACACACACAGAGAGAGAGAAAAACCCCAGTGAGGAATTCATCAGAGCAGTGAGT 781  1187 ATTAAAGAGACTAACAGAGAGACACAGAGAACTACAGAGAATTCAGACACAGTGATTAACAGCCAGTGAGTAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGAGAGAATTCAGCACAATTCAGAGACACAATTCAGAGACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGACACACAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCACACAAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCAGAGAATTCACACAAATTCAGAGAATTCACACAAATTCAGAGAATTCACACAAATTCAGAGAATTCACACAAATTCAGAAATTCAGACACAATTCACACAAATTCAGAAATTCAGAGAATTCACACAAATTCAGAAATTCAGAGAATTCACACAAATTCAGAAATTCAGAATTCACACAAATTCAGAAATTCAGAAATTCAGAAATTCAGAAATTCACACAAATTCAGAAATTCACACAAATTCACACAAATTCACACAAATTCAGAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAATTCACACAAAATTAAAAAA                                                                            | 1777 ATCCTCATGGGGCATCTACTTGGTGGTGGGGTGGGATGTGGGGTTGGCATGTTTGGCTCTGTTTGGTCTTGGTGTGGGGTATGGTTGGGGGATGTTGGGGGGGTATGGGTGGGGGATGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1177 ATCCTCANGGGGATCTACTTTGCTTGGGTGGGATGGATTGGAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1177 ATCCTCANGGGGATCTACTTTGCTTGGGTGGGATGGATTGGAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1177   ATCCTCANGGGGATCTACTTTGTGCTTGGGTTGGATGGATTGGAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 601 ATTCTCANGGGGATCTACTTTGTGCTTGGGCTCAGGATGGATGGATTGCTTAATGCCTCCT 123  1177 ATTCACCGGGGGATCTACTTTGTGCTTGGGCCCCGGATGGAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 601 ATTCTCANGGGGATCTACTTTGTGCTTGGGCTCAGGATGGATGGATTGCTTAATGCCTCCT 123  1177 ATTCACCGGGGGATCTACTTTGTGCTTGGGCCCCGGATGGAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 601 ATTICTION GOGGIAN CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTIAL CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTING CONTRINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGENTINGE   |
| 601 ATCCCCANGOGGATCTACTTTGTGCTTGGGCTCAAGAGTGGTGGCATTTATTGCCCCC 1177 ATCCACCGCCAAGACAACAACAACACACACAGTGGCAATTATTGCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 601 ATCCCCANGOGGATCTACTTTGTGCTTGGGCTCAAGAGTGGTGGCATTTATTGCCCCC 1177 ATCCACCGCCAAGACAACAACAACACACACAGTGGCAATTATTGCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 601 ATCCCCATOGGGGATCTACTTTGGGGTGAGGGGGGTGGGGGATCTTCTATTTGCCTC 660  1177 ATCCATOGGGGATCTACTTTGGTGTGGGGCAGGGGGGATGGGGATGGTGGGAAGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGA | 601 ATCCCCATOGGGGATCTACTTTGGGGTGAGGGGGGTGGGGGATCTTCTATTTGCCTC 660  1177 ATCCATOGGGGATCTACTTTGGTGTGGGGCAGGGGGGATGGGGATGGTGGGAAGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGATGGA | 601 ATCCCCATGGGGGATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTTGCCTC 660  1177 ATCCATGGGGGATCTACTTTGTGCTTGGGCTCAGCAGTGGTGGCATTTTATTGCCTC 123  661 ATCCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGGTGGATCTTCTATTGCCTC 123  1127 ACCATGGCAGCTCAACAAGCAAGCAAGCACAGCATGGACCATTACAAGTTGCGACAGCA 720  1127 ACCATGCACCGGCAGATTACATGGGCAGACACAGCACTGACCAATACAAGTTGCAACAGCA 720  1127 ACCATGCACCACCACATGGGCAGAACAAGCACACACAATACAAGTTCCAAGAGA 720  1127 ACCATGCACCACCACATGGCCAGGAACACAGCACAATACAAGTTCCAAGAGA 720  1127 CTGGACAACACAAGTTACAACAACAACACACAATACAACACATCAATACAAGTTCCAAGAGA 720  1127 ACCATGCACCACACACAACAACAACAACAACAATACAACAATACAACA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 601 ATCCTANGGGGCACCACTTGTGCTGGGCACGAGGGGTGTGGCATTCTTTATTGCCTC 1177 ACCACGGCACCACTCACTTTGTGCTTGGCCACGAGGAGTGTTGGCATTCTTATTGCCTC 1187 ACCACGGCACGAGCACCACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 601 ATCCTANGGGGCACCACTTGTGCTGGGCACGAGGGGTGTGGCATTCTTTATTGCCTC 1177 ACCACGGCACCACTCACTTTGTGCTTGGCCACGAGGAGTGTTGGCATTCTTATTGCCTC 1187 ACCACGGCACGAGCACCACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 601 ATCCTCATGGGGCATCATTTGGGCTCAGCAGTGTTGGCATTTTATTGCCTC 660  1177 ATCCTCATGGGCATCATTTGTCTTGGCTCAGCAGTGTTGGCATTTTATTGCCTC 123  661 ATCCTCAGGGGCATCACTTTGTCTTTGGCTCAGCAGTGTGTGGCATTTTATTGCCTC 123  1127 ATCCTCAGGCACAGTGCAGCACAGCACAGCACAGCAATACACTTCCCACAGCA 129  1129 AGCATCCACTCCACCAGTGCACACAGCACACAGCACAGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 61 ATCCTCATOGGGCATCTATTTTTTTTTTTTTTTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 61 ATCCTCATOGGGCATCTATTTTTTTTTTTTTTTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 661 ATCCTATAGGGCATCTATTTGGCCTCAGGCATCTGGCCTCGGCATCTTTGTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1177 CTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1177 CTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CIGATACTORIONALINATIONAL CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND CONTROLLAND  |
| 1117 CTGCTACCTGTAGCTCTGCACCTTTGACCGCACCTGCACCCTTACACCACC 117 ATCCTCACCGCACCTTTGACTCTGCACCTTTGACCCCACCGCACCCTCCACCCTCCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACA | 1117 CTGCTACCTGTAGCTCTGCACCTTTGACCGCACCTGCACCCTTACACCACC 117 ATCCTCACCGCACCTTTGACTCTGCACCTTTGACCCCACCGCACCCTCCACCCTCCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCTCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACCACA | 1117 CTGGTACCTGTAGTCTGCACCTTTGACCGCACCGCCGCCGCCGCCGCCTTACACCACC 117 ATCCTCACCGCACCTTTGACTTGCTCTCGCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1117 CTGGTACCTGTAGCTCTGCACCTTTGACCGCATCCAAGCCGGCCTTACACCCCC  1177 ATCCTCATGCGCAACTACTTGCTTGCGTCGCTTGCATGCGCTTTCTATTTGCTC  1177 ATCCTCATGCGCAACTACTTTGCTTGCTCGCGTCTTGCAACGCAACTACACCTC  1177 ATCCTCATGCGCAACTACTTTGCTTGCTTGCAAGCCAATGCAACTTCCAACACCAACTACTACTTCTATTTCCTC  1177 ATCCACCACCACCACCAACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1117 CTGGTACCTGTAGCTCTGCACCTTTGACCGCATCCAAGCCGGCCTTACACCCCC  1177 ATCCTCATGCGCAACTACTTGCTTGCGTCGCTTGCATGCGCTTTCTATTTGCTC  1177 ATCCTCATGCGCAACTACTTTGCTTGCTCGCGTCTTGCAACGCAACTACACCTC  1177 ATCCTCATGCGCAACTACTTTGCTTGCTTGCAAGCCAATGCAACTTCCAACACCAACTACTACTTCTATTTCCTC  1177 ATCCACCACCACCACCAACACACACACACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1117                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1117   CHGGNACCHGNACCHGNACCHCANACCHCCANACCCCANTACACTTCANTTCCTT   1117   ATCCTCANTGGCACCTCANCTCATTCANTTCCTT   1217   ATCCTCANTGGCACCTCANCTCACCACCTCACCACCTCACCACCTCACCACCTCACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1117   CHGGNACCHGNACCHGNACCHCANACCHCCANACCCCANTACACTTCANTTCCTT   1117   ATCCTCANTGGCACCTCANCTCATTCANTTCCTT   1217   ATCCTCANTGGCACCTCANCTCACCACCTCACCACCTCACCACCTCACCACCTCACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1117   CIPCHANGCTCHANGCTCHANGCTTTANCCTCANGCTCANGCTCANGCTCHANGCTC 60   ATTCCTCANGCCANCTCANCTCCTTCCTCACCTCACCATCCATTCTATTCCTCT 60   1177   ATCCTCATCCANCTCANCTCCTTCCTCACCACCATTCACCATTCTATTCCTCT 60   1177   ATCCTCATCCANCTCANCACCACCACCACTCACCCATTCCANCACCATTCCACCACCATTCACCACCACTCACCACTCACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1117 TITLOTANGCCTOTANGCCTTTANGCCTTTANGCCTTTANGCCCTTTANGCCCCTTANGCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 TITLOTANGCCTOTANGCCTTTANGCCTTTANGCCTTTANGCCCTTTANGCCCCTTANGCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 TITIOTICALINGCITAGATCHICALINGCITACACCHICALINGCITACACCCCCITACACCCCCTTACACCCCCCCTTACACCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1117 TETETATION TO SECRETARY CONTRIBUTION TO THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF | 1117 TETETATION TO SECRETARY CONTRIBUTION TO THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF THE TABLE OF | 1117 TITLE TOTAL CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONTROLLED AND CONT |
| 11177 ACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 11177 ACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1117 CTCGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1911 CTGGANCACCTCCATCTCCATCTCCATCTCCATCTCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1911 CTGGANCACCTCCATCTCCATCTCCATCTCCATCTCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1177 CTGGANGGCANGGCANGGANGCANGGCANGGCANGGCANG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1117 CTGGARGAGGARCTACTGGGARGAGGAGGAGGAGGAGGAGGAGGAGCAGCACTACACACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACT | 1117 CTGGARGAGGARCTACTGGGARGAGGAGGAGGAGGAGGAGGAGGAGCAGCACTACACACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACT | 1177 CTGGTACCTCCTCGTACTCTCTCTCCTCCTCCTCCTCCTCCTCTCTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1917 CTGGARCACCTCCAACCACCACCACCACCACCACCACCACCACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1917 CTGGARCACCTCCAACCACCACCACCACCACCACCACCACCACCAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 11.7 CTOSTACCTOCACCTOCACCTOCACCTOCACCTOCACCTOCACCTOCACCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1177 CTGGATACCTGTAGGACTTTGAGGACTTGAGGACTTGAGGAGGAGGAGGAGCTTAGACCACC 1170  1177 ATCCTCATCGGAGGATCTACTTGGAGGAGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1177 CTGGATACCTGTAGGACTTTGAGGACTTGAGGACTTGAGGAGGAGGAGGAGCTTAGACCACC 1170  1177 ATCCTCATCGGAGGATCTACTTGGAGGAGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 11.7 CTGGTACCTGTACCTGTACCTGTACCTGTACCGTACCGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1117 CTGGATACCTGTAGACTTTTAGACTGGACCTGAGACCTGCAGGCGGCGCCCTTACACCACC 600  1117 CTGGATACCTGTAGATTTTAGACTGGACCTGCAGCTGTGCACCTGCCTTATTTAGCCC 611  1117 ATCCTCACCGCCAGCACCACCTGCACCTGCACCTGCCACCTGCACCTGCCTTTTCTTCCTCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1117 CTGGATACCTGTAGACTTTTAGACTGGACCTGAGACCTGCAGGCGGCGCCCTTACACCACC 600  1117 CTGGATACCTGTAGATTTTAGACTGGACCTGCAGCTGTGCACCTGCCTTATTTAGCCC 611  1117 ATCCTCACCGCCAGCACCACCTGCACCTGCACCTGCCACCTGCACCTGCCTTTTCTTCCTCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1117 CTGGATACCTGTAGACTGGAGGCTTGAGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1117 CTGGATACCTGTAGACTTTTAGACTGGACCTGAGACCTGCAGGCGGCGCCCTTACACCACC 600  1117 CTGGATACCTGTAGATTTTAGACTGGACCTGCAGCTGTGCACCTGCCTTATTTAGCCC 611  1117 ATCCTCACCGCCAGCACCACCTGCACCTGCACCTGCCACCTGCACCTGCCTTTTCTTCCTCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1117 CTGGATACCTGTAGACTTTTAGACTGGACCTGAGACCTGCAGGCGGCGCCCTTACACCACC 600  1117 CTGGATACCTGTAGATTTTAGACTGGACCTGCAGCTGTGCACCTGCCTTATTTAGCCC 611  1117 ATCCTCACCGCCAGCACCACCTGCACCTGCACCTGCCACCTGCACCTGCCTTTTCTTCCTCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1117 CTGGATACCTGTAGACTGGAGGCTTGAGGGGGGGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACCTGGACGTTTGACGGATCGGAGGCGGGCCTTACACCACC 1117 ATCCCCTGGAACTTGCTGGACGTTTGACGCATCGGAGGCGGCCTTACACCACC 1117 ATCCCCTGGAACGACGAACGACGCACGCGCCAATACATTGCGAACGCCTC 123 1127 ATCCACGCGCAACGAACGACGACGACGCCACGCAATACATTGCGAACGCCTC 123 1128 ATCCACGCCCACGATTGCGCACACACGCCACCACCACACTTCTGCACACGCC 123 1129 ACCACCGCCACGATTGCCACACACGACCACACACACACAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1117 CTGGTACCTGTACATCTGGACGTTTGACGGATGCGAGGGGGGGCCTGACACCCC 6 11 CTGGTACCTGTACACCCC 6 11 CTGGTACACCCGC 7 CTGGTACACCCCC 6 12 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCC 7 CTGGTACACCCCCCCCC 7 CTGGTACACCCCCCCCCCCCC 7 CTGGTACACCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1177 CTGGATACCTGTAGGACTTTGAGGACTTGAGGACTTGAGGAGGAGGAGGAGCTTAGACCACC 1170  1177 ATCCTCATCGGAGGATCTACTTGGAGGAGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1177 CTGGATACCTGTAGGACTTTGAGGACTTGAGGACTTGAGGAGGAGGAGGAGCTTAGACCACC 1170  1177 ATCCTCATCGGAGGATCTACTTGGAGGAGCAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 11.7 CTGGTACCTGTACCTGTACCTGTACCTGTACCGTACCGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1117 CTGGARGAGGARCTACTGGGARGAGGAGGAGGAGGAGGAGGAGGAGCAGCACTACACACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACT | 1117 CTGGARGAGGARCTACTGGGARGAGGAGGAGGAGGAGGAGGAGGAGCAGCACTACACACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACTACACT | 1177 CTGGTACCTCCTCGTACTCTCTCTCCTCCTCCTCCTCCTCCTCTCTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1911 CTGGANCACCTCCATCTCCATCTCCATCTCCATCTCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1911 CTGGANCACCTCCATCTCCATCTCCATCTCCATCTCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1177 CTGGANGGCANGGCANGGANGCANGGCANGGCANGGCANG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1117 CIPCOTOCCIGNACTIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONA | 1117 CIPCOTOCCIGNACTIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONACCIONA | 1117 CIPCHOLOGICAL CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROLLE CONTROL |
| 1117 CICOTROCCIGNACTICATION CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUE | 1117 CICOTROCCIGNACTICATION CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUES CONTINUE | 1117 CICCATOCCGGACTTCATTTCACCTTCACCCCTTCACCCCTTCACCCCCTTCATTCCCCCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

```
361
 481
 541
 Query Match
 à
 g
 ò
 g
 d
 ò
 임
 à
 qq
 ò
 qq
 à
 g
 ò
 g
 ò
 q
 8
 g
 ò
neurological disease; infection; nephrotropic; gene therapy; vaccine;
 Barash SC;
 2000US-0217487P.
200US-0217496P.
200US-0218290P.
200US-0220963P.
200US-0220964P.
 2000US-0237040P
2000US-0239935P
 17-JAN-2001; 2001US-00764853
 2000US-0216880P
 2000US-0236802P
 2000US-0240960P
 Rosen CA, Ruben SM,
 WPI; 2002-681727/73
 (ROSE/) ROSEN C A.
(RUBE/) RUBEN S M.
(BARA/) BARASH S C.
 JS2002090672-A1
 Homo sapiens
 08-DEC-2000;
 gene; ds
```

```
The invention relates to novel genes (ABV83682-ABV84101) and proteins (ABP66710-ABP67129) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the nucleic acids, proteins, antibodies and (ant) agonists are useful in the adagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune consemna, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) infections. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from MIPO at fip.wipo.int/pub/bublished_pot_sequences
 1116
 1056
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 1236
 480
 636
 120
 300
 876
 360
 936
 420
 969
 180
 756
 816
 601 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCACCAGTGTTGGCATCTTCTATTGCCTC
 577 Transargeraderrecerciterecretrecaeceretrageeretrage
 121 TATGTTGCAGTTAGCTGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 241 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 817 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 937 TITGCCTCCAATTCTGTCTCCATCCTGACCTCTGCCTCATCGCACTGGGACGCTACCTC
 421 CICATIGCCCACCCIAAGCITITICCCCAAGTITICAGTGCCAAGGGGGATAGTGCTGGCA
 997 crcarreccacccraagcrifiriccccaagrificagreccaagggaragrecfegga
 1 TIGAATGCTAGGITCTGATTCCCTCTTCCTTCCACCCTCTGCCTCTTTAGCCTCTATC
 61 ATGIGGAACAGCICIGACGCCAACTICTCCTGCTACCATGAGICTGTGCTGGGCTATCGT
 637 ArgregaAcagerereaeceaaerrerecereceaecareaerereree
 697 Targingcagringcressessingsresissingschendschessessissenstatere
 181 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 301 TACCTCCACTGCACTGCGCACCGGTGCCACCTTCTGCAGGTATTTGGGCTCCTCTT
 877 TACCTCCACCTGCACTGCCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTCTT
 TITGCCTCCAATTCTGTCTCCATCCTGACCTTCTGCCTCATCGCACTGGGGACGCTACCTC
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 1057 creercadeacerdescrieres escensiones contracerce escential and escensiones
 ·.
 DB 6; Length 2046;
 Disclosure; SEQ ID NO 875; 369pp + Sequence Listing; English.
 Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;
 Indels
 99.6%; Score 1306; D
100.0%; Pred. No. 0;
tive 0; Mismatches
 Best Local Similarity 100.
Matches 1306; Conservative
neurological disorders.
 1177
ò
 g
```

661 ATCCACCGCCAGGTCAAACGAGCAGCACCACTGGACCAATACAAGTTGCGACAGGCA 720

and

Novel polypeptide useful for diagnosis, prognosis, prevention, treatment of immune, hyperproliferative, renal, respiratory, cardiovascular, reproductive, endocrine, gastrointestinal and

721

ò g 1357

B S 8

781

841

1417

d

1477

g

901

 $\delta$ 

1537

961

상염

1021 1597 1081 1657 1141

8

g

ò

```
2000US-0186350P.
2000US-0189874P.
2000US-01998123P.
2000US-0209415P.
2000US-0209415P.
2000US-0214886P.
2000US-0214886P.
2000US-0214886P.
2000US-0214886P.
2000US-0214886P.
2000US-0214886P.
2000US-0214886P.
2000US-0214886P.
2000US-021488P.
2000US-0224518P.
2000US-0224518P.
2000US-0225213P.
2000US-0225214P.
2000US-0225214P.
2000US-0225218P.
2000US-022526F.
2000US-022526F.
2000US-022526F.
2000US-022526F.
2000US-022526F.
2000US-0225286P.
2000US-0225286P.
2000US-0225286P.
2000US-0225286P.
2000US-0225286P.
2000US-0225286P.
2000US-0225286P.
2000US-0225287P.
2000US-0229287P.
2000US-0229287P.
2000US-0229287P.
2000US-0229287P.
2000US-0229287P.
2000US-0229287P.
2000US-0229287P.
2000US-0229287P.
2000US-023943P.
2000US-0239445P.
2000US-0239445P.
2000US-0239444P.
 2000US-0232397P
2000US-0232398P
2000US-0232400P
2000US-0232400P
2000US-0232401P
2000US-0233065P
2000US-0233065P
2000US-0233065P
2000US-0234997P
2000US-0234997P
2000US-023498P
2000US-023488P
2000US-0235888P
2000US-0235888P
2000US-0235888P
2000US-0235888P
2000US-0235888P
2000US-0235888P
2000US-0235888P
2000US-0235888P
 2000US-0232080P.
2000US-0232081P.
2000US-0231968P.
 2000US-0237038P
 23-AUG-2000;

30-AUG-2000;

31-SEP-2000;

01-SEP-2000;

05-SEP-2000;

06-SEP-2000;

06-SEP-2000;

06-SEP-2000;

08-SEP-2000;

08-SEP-2000;

08-SEP-2000;

08-SEP-2000;

08-SEP-2000;

08-SEP-2000;

08-SEP-2000;

14-SEP-2000;

14-SEP-2000;

14-SEP-2000;

14-SEP-2000;

14-SEP-2000;

14-SEP-2000;

14-SEP-2000;
 16-MAR-2000; 216-MAR-2000; 216-MAR-2000; 218-MAR-2000; 219-MAR-2000; 219-MAY-2000; 228-JUN-2000; 228-JUN-2000; 226-JUL-2000; 226-JUL-2000; 226-JUL-2000; 226-JUL-2000; 226-JUL-2000; 226-JUL-2000; 214-AUG-2000; 214-AUG-2000; 22-AUG-2000; 22-
 14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
 21-SEP-2000;
 1020
 IGITITGCIGIGITCCICIGCITIGCCCIGAGCIACAICCCCTICITGCIGCTCAACAIT 1080
 1140
 1716
 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1260
 1356
 1476
 1416
 ATCCACCGCCAGGTCAAACGAGCAGCAGCACTGGACCAATACAAGTTGCGACAGGCA 1296
 780
 840
 900
 960
 Human; gene; ds; kidney disorder; cardiovascular disorder; arrhythmia; glomerulonephritis; urinary tract infection; chronic nephritis; anaemia; carcinoid heart disease; endocarditis; blood disorder; thrombosis; haemoglobin abnormality; electrolyte imbalance; neoplastic disorder; cancer; respiratory disorder; acute rhinitis; sinusitis; pharyngitis; neurological disorder; Alzheimer's disease; Parkinson's disease; Huntington's disease;
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCCTTCATCGGAATTTGGGAAAGGTGACTCGAATG
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 CIGGAIGCCAGAGTCCAGGCTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG
 AAGAGACTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAAGACCAGATCAACAGC
 CCTAGICACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 2000US-0179065P.
2000US-0180628P.
2000US-0184664P.
 ACD01492 standard; DNA; 2046
 2001US-00989442
 (first entry)
 Human genomic DNA #1.
 US2003013649-A1.
 31-JAN-2000; 204-FEB-2000; 24-FEB-2000; 24-FEB-2000; 24-FEB-2000; 24-FEB-2000; 2000;
 21-NOV-2001;
 Homo sapiens
```

1717

g

ò

1201

à

1777

ద

1261 1837

à

16-JAN-2003

30-JUL-2003

ACD01492

Fri Sep 24 14:01:03 2004

2000US-0254097P. 2001US-0259678P. 2001US-00764863.

(ROSE/) ROSEN C A. (RUBE/) RUBEN S M. (BARA/) BARASH S C.

New nucleic acids and polypeptides, useful for diagnosing, prognosing, preventing and/or treating e.g. kidney, cardiovascular, blood, electrolyte imbalance, neoplastic, respiratory, or neurological diseases Barash SC; Rosen CA, Ruben SM, WPI; 2003-416807/39

1236

1177

us-10-029-436-1.rng

Disclosure, Page 308-309; 363pp; English.

The invention relates to isolated nucleic acids encoding novel polypeptides. The nucleic acids are useful for chromosome mapping, for radiation hybrid mapping, for detection cancer, in gene therapy, for identifying individuals from minute biological samples, as an alternative to restriction fragment length polymorphism (RFLP) analysis, in forensic biology and as hybridisation probes for differential identification of tissues or cell types present in a biological sample. Compositions comprising the polymorlectides, polypeptides and antibodies specific for the polypeptides may be used in the diagnosis, prognosis, prevention and/or treatment of kidney disorders (e.g. glomerulonephritis, urinary tract infections, chronic nephritis), cardiovascular disorders (e.g. thrombosis, anaemia, haemoglobin abnormalities), blood disorders (e.g. thrombosis, anaemia, haemoglobin abnormalities), electrolyte imbalance, neoplastic disorders (e.g. cancers), respiratory disorders (e.g. Alzheimer's disease, Parkinson's disease, Huntington's disease).

Sequences ACD01492-ACD01506 represent human genomic DNA molecules of the invention 

Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;

ò g ò g ò q ò Db ò a  $\delta$ 임 ò ద ò 엄 ð g ò g à

0 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGGATAGTGCTGGCA 1056 966 1117 cristraccristracrecacerscaecrirraacescarecsasseeseerracaecae 1176 989 120 180 240 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACCACC 300 420 540 756 816 360 936 697 TATGTTGCAGTTAGCTGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC 817 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 1 TIGAATGCTAGGTTCTGATTCCCTCTTCCTCTTCCACCCTCTGCCTCTTTAGCCTCTATC 577 TIGAATGCTAGGTTCTGATTCCCTCTTCCTCTTCCACCCTCTGCCTCTTAGCCTCTATC 61 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 637 ArgregaAcaecroreaceccaacrrorecractaccareaerorerecresecrater TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC TACCTCCACCTGCACTGCCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 877 haccrecaccrecacrescences and a reconstruction of the contraction o TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC CTCATTGCCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 1057 CTGGTGAGCACCTGGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC CIGGIGACCACCIGGGITGIGGGCGTGGCCAGCTITGCTCCCCTCTGGCCTATTTATATC 601 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC Gaps ; Query Match 99.6%; Score 1306; DB 7; Length 2046; Best Local Similarity 100.0%; Pred. No. 0; Matches 1306; Conservative 0; Mismatches 0; Indels 0 121 181 757 241 301 937 481 361 421 997 541

2002US-00103313

```
22-MAR-2002;
1416
 1356
 GCTGCCACCACAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC 1476
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1596
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1080
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1776
 TATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATTAGGACTGTGAC 1260
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 1536
 ATCCACCGCCAGGTCAAACGAGCAGCACAGCACTGGACCAATACAAGTTGCGACAGGCA 1296
 780
 840
 900
 960
 Neoplastic disease-associated polypeptide; gene therapy; hyperproliferative disease; cancer; autoimmune disorder; diabetes; rheumatoid arthritis; systemic lugus erythematosus; multiple sclerosis; autoimmune thyroiditis; haemolytic anaemia; haematopoietic disorder; haematologic disorder; anaemia; thrombocytopaenia; allergic reaction; haematologic disorder; anaemia; thrombocytopaenia; allergic reaction; asthma; eczema; inflammatory disorder; ischaemia-reperfusion injury; inflammatory bowel disease; rothm's disease; neurodegenerative disorder; Alzheimer's disease; Parkinson's disease; renal disorder; acute glomerulonephritis; end-stage renal disease; almerations disease; atherosclerosis; myocarditis; infectious disease; AIDS; cachexia; anorexia; wound healing; epithelial cell proliferation; Human; ds.
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCCATGCCTGGTCGTTTCCAGGAG
 ATTAAAGGAGCCAGAAGGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCCAACATT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 Human neoplastic disease-associated gene 16 DNA #1.
 ADC46506 standard; DNA; 2046 BP
 (first entry)
 US2003082758-A1
 18-DEC-2003
 01-MAY-2003
 1237
 1297
 1357
 1417
 901
 1477
 1537
 1597
 1717
 1021
 1081
 1657
 1201
 1261
 1837
661
 721
 781
 841
 961
 1141
 1777
 ADC46506
 Ношо
 RESULT 12
 g
 g
 d
 ð
 ò
 \dot{\delta}
 Db
 à
 g
 à
 원
 ò
 à
 à
```

```
21.SEP-2000; 2000US-0234274P.
25.SEP-2000; 2000US-0234997P.
25.SEP-2000; 2000US-023548P.
27.SEP-2000; 2000US-023544P.
27.SEP-2000; 2000US-0235834P.
27.SEP-2000; 2000US-0235836P.
29.SEP-2000; 2000US-0235836P.
 11 - MAR. - 2000; 2000US - 0190076 | 19 - MAR. - 2000; 2000US - 0190076 | 19 - MAR. - 2000; 2000US - 0190076 | 19 - MAR. - 2000; 2000US - 0190076 | 19 - MAR. - 2000; 2000US - 0190076 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0219 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0229 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US - 0231 | 19 - MAR. - 2000; 2000US
2000US-0179065P.
2000US-0180628P.
2000US-0184664P.
2000US-0186350P.
2000US-0189874P.
 16-MAR-2000; 2 17-MAR-2000; 2 19-MAR-2000; 2 19-MAY-2000; 2 20-UN-2000; 2 22-AUG-2000; 2 20
```

Sep 24 14:01:03 2004

Fri

WPI; 2003-786918/74.

29-SEP-2000; 2000US-0236340P.
22-CST-2000; 2000US-0236370P.
02-CCT-2000; 2000US-0237037P.
02-CCT-2000; 2000US-024178FP.
02-CCT-2000; 2000US-024186FP.
02-CCT-2000; 2000US-024186FP.
02-CCT-2000; 2000US-024186FP.
02-CCT-2000; 2000US-024186FP.
03-CCT-2000; 2000US-024186FP.
03-CCT-2000; 2000US-024186FP.
03-CCT-2000; 2000US-0244617P.
03-CCT-2000; 2000US-0246617P.
03-CCT-2000; 2000US-0246617P.
03-CCT-2000; 2000US-0246617P.
03-CCT-2000; 2000US-0246617P.
03-CCT-2000; 2000US-0246617P.
03-CCT-2000; 2000US-0246617P.
03-CCT-2000; 2000US-0246528P.
03-CCT-2000; 2000US-0246528P.
03-CCT-2000; 2000US-0246528P.
03-CCT-2000; 2000US-0246528P.
03-CCT-2000; 2000US-0246518P.
03-CCT-2000; 2000US-0246518P.
03-CCT-2000; 2000US-0246518P.
03-CCT-2000; 2000US-0246518P.
03-CCT-2000; 2000US-0246518P.
03-CCT-2000; 2000US-0246518P.
03-CCT-2000; 2000US-0248218P.
03-CCT-2000; 2000US-0248218P.
03-CCT-2000; 2000US-0248218P.
03-CCT-2000; 2000US-0248218P.
03-CCT-2000; 2000US-0248218P.
03-CCT-2000; 2000US-024828P.
03-CCT-2000; 2000US-024828P.
03-CCT-2000; 2000US-024828P.
03-CCT-2000; 2000US-025886P.
03-CCT-(HUMA-) HUMAN GENOME SCI INC. 05-JAN-2001; 

The invention relates to one of 238 disclosed human neoplastic diseaseassociated polypeptides encoded by 171 disclosed cDNA sequences
(including their domains, epitropes, full-length proteins, allelic variants
or species homologues). Also included are there encoding nucleic acids, a
comprising the nucleic acid (expressing the protein), an isolated
antibody that binds specifically to the isolated polypeptide, preventing,
treating or ameliorating a medical condition, diagnosing a pathological
condition or a useeptibility to a pathological condition in a subject,
in a biological assay, and the gene corresponding to the CDNA sequence.
The polypeptides, polypuclectides and antibodies are useful for
the polypeptides, polymuclectides and antibodies are useful for
the polypeptides, polymuclectides and antibodies are useful for
centering medical conditions such as hyperproliferative diseases or
conner, autoimmune disorders (e.g. diabetes, rheumatoid arthritis,
systemic lupus erythemacosus, multiple sclerosis, autoimmune thyroiditis
or haemolytic anaemia), haematopoietic or haematologic disorders (e.g.
caneemia or thrombocytopaenia), allergic reactions including asthma or
ceczema, inflammatory disorders (e.g. ischaemia-reperfusion injury,
inflammatory bowel disease or Crohn's disease), neurodegenerative New isolated human neoplastic disease-associated polypeptides and polynucleotides, useful for diagnosing, preventing, prognosticating or treating medical conditions such as cancer, AIDS, diabetes or Parkinson's Disclosure; SEQ ID NO 592; 302pp; English 

9 1 TIGAAIGCIAGGIICIGAIICCCICIICCICIICCACCIICIAGCCICIIIAGCCICIAIC Gaps ·, 99.6%; Score 1306; DB 9; Length 2046; 100.0%; Pred. No. 0; o; Indels 0 Query Match Best Local Similarity 100. Matches 1306; Conservative

à q ò д à g ò g à g à Db à g ð. 임 ò d ð

1056 120 180 756 816 300 876 480 636 969 577 TIGAATGCTAGGTTCTGATTCCCTCTTCCTCTTCCACCCTCTGCCTCTTAGCCTCTATC 997 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA 61 AICTGGAACACTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 637 ATGIGGAACAGCTCIGACCCAACTICTCTGCTACCATGAGTCTGTGCTGGGCTATCGT 181 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 157 ACCCTACTGCCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 241. AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 817 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 877 TACCTCCACCTGCACTGCCCACCGGTGCCACCTTCTGCAGGGTATTTGGGCCTCCTT 361 TITGCCTCCAATICTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA TATGTTGCAGTTAGCTGGGGGGGGTGGTGGTGTGACAGGCACCGTGGGCAATGTGCTC 697 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACGTGGGCAATGTGCTC TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 937 tringcerecaarrengrerecarecidadecerengecerearegeacearacere THECTCCCCTCTGGCCTATTTATATC CTGGTGAGCACCTGGGTTGTGGGGGGTGGCCAGCT 121 301 481 421

> Barash SC; Rosen CA, Ruben SM,

CIGGIACCIGIAGICIGCACCIGCAGCITIGACCGCAICCGAGGCCGGCCTTACACCACC

541

1057 creereaecaccreesrrereseceresecascerrecreececereresecratratate

```
This invention describes a novel human monoamine receptor-1 (MAR1) gene (I) which has cytostatic activity and can be used for gene therapy. (I), and derived (anti)sense oligonucleotides, are useful in treatment and diagnosis of (I)-related diseases (possibly tumours and psychiatric disorders), for producing transgenic/knockout animals, and for recombinant expression of the protein (II) that it encodes. (II) is useful in ligand-binding studies and screening assays, also for treatment and diagnosis of (II)-related diseases. This sequence encodes the human MAR1 monoamine receptor-1 protein
 monoamine receptor-1 gene, MAR1, useful for diagnosis and treatment
 ACCCTACTGGCCTTGGCCATCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 241 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 1963 TITGCTCCAAITCTGTCTCCAICCTGACCTCTGCCTCTGCCACCACTGGGACGCTACCTC
 2023 cicatraccaacctaaactititccccaactiticaggacaaccaaccaaaggaaraggaca
 CIGGIGAGCACCIGGGITGIGGGCGIGGCCAGCITIGCICCCCCTCIGGCCIATITATAIC
 1603 TIGAARGCTAGGTTCTGATTCCCTCTTCCACCTCTCCACCTCTTAGCCTCTTAGCCTCTTAGC
 1663 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TACCTCCACCTGCACTGCCGCTGCCACCTTCTGCAGGGTATTTGGGCTCCTTT
 1903 raccrecaccrecacreeceaccegreceaccrecrecaegerarragescrecre
 1 TIGAAIGCTAGGIICIGATICCCICTICCTCCTCCCCCCTCTGCCTCTTAGCCTCTAIC
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGCACCGTGGGCACTGTGCTTC
 ACCCTACTGGCCTTGGCCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 TITGCCTCCAATTCTGTCTCCATCCTGACCTTCTGCCTCATCGCACTGGGACGCTACCTC
 421 CTCATTGCCCACCCTAAGCTTTTCCCCAAGTGCCCAAGGGGATAGTGCTGGCA
 .
0
 Sequence 5460 BP; 1603 A; 1167 C; 1268 G; 1422 T; 0 U; 0 Other;
 DB 6; Length 5460;
 0; Indels
 Query Match
99.6%; Score 1306; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1306; Conservative 0; Mismatches
 Disclosure; Page 3-4; 6pp; German.
 03-MAY-2000; 2000DE-01021474
 03-MAY-2000; 2000DE-01021474
 of MAR1-related diseases.
 Bruess M, Boenisch
 WPI; 2002-011956/02.
 BRUESS M.
BOENISCH 1
 P-PSDB; AAG80225
 BRUESS
 DE10021474-A1
 08-NOV-2001
 181
 481
 61
 121
 1783
 301
 361
 (BRUE/)
 (BOEN/)
 New
 g
ò
 g
 a
 \delta
 d
 ò
 à
 g
 ò
 음
 Š
 g
 ò
 셤
 ò
 1080
 1140
 1416
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
 reminiscrendricicnescrineceridadenacieeeerreenacieaacann 1656
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAG 1260
 TATGGCTCCATTTTAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1836
 1296
 1356
 gergeceaeceaecergaecergaangaangagaereareangaagragaagaecagareaaeage 1476
 960
 720
 780
 840
 900
 CTGGATGCCAGAGCTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACTGG
 crasareccadastecadecreecedesrecreatesrecraecraecaacered
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 AAGAGGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
 rerrrrecrerrecrererrrecerresecracarecerrerrecrerrecreare
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 MARI; monoamine receptor-1; human; cytostatic; gene therapy; tumour; psychiatric disorder; transgenic animal; knockout animal; ds.
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 ccraercaccagaarrcaegacrerecreerecaggaccaaagrege 1882
 Location/Qualifiers
1663. .2853
 /*tag= a
product= "MAR1"
3049. .3053
/*tag= b
3461. .3465
/*tag= c
5184. .5188
 ВЪ
 (first entry)
 standard;
 Homo sapiens
 polyA_signal
 22-JAN-2002
 polyA_signal
 polyA_signal
 Human MAR1
 661
 1237
 1297
 1357
 1417
 901
 1477
 961
 1537
 1597
 1081
 1657
 1141
 1717
 1201
 1777
 1261
 1837
 1021
 AA168792
 AA168792,
 721
 781
 841
 AA168792
AA168792
AA168792
XX
AA168
XX
AA168
XX
DT 22-JP
XX
XX
XX
XX
XX
XX
HUMAI
XX
XX
XX
HOMO
XX
XX
FH
KEY
FT
FT
POLYF
FT
FT
POLYF
FT
 g
 8 % 8
 8 8
 g
 qq
 g
 à
 g
 \delta
 ò
 셤
 ò
 g
 장염
 8
 ò
 à
```

1842

240

1782

180

1662

9

ö

Gaps

1722

120

1962

2022

480

420

2082

540

1902

300

2143 601 2203

661

à

g

721

8

g δ В  $\delta$ 

541

ò g  $\dot{\delta}$ В

2383 781

841

g

901

ò g ò g ò g δ 엄

2563

961

2623

1021

2683

1141

ò

엄

1201

δ g à

2803 1261 2863

AAV38513 AAV38513

RESULT 14

1081

```
human G-protein coupled receptor and are used in vaccines to protect mammals from infections e.g. bacteraial, fungal, protozoan and viral infections (especially infections caused by HIV-1 or HIV-2), cancers and Parkinson's disease. The HNFUDIS polypeptides can be used to produce antibodies which are used to treat such infections, isolate or identify clones expressing the polypeptide or to purify the polypeptide. The polypeptide or to purify the polypeptide or activating or inhibiting activation of HNFUDIS. They can be used to activating or inhibiting activation of HNFUDIS. They can be used to activity of HNFUDIS
 Human G-protein coupled receptor, HNFJD15 - used e.g. in treatment and diagnosis of infections e.g. by HIV-1, HIV-2 and cancers and screening antagonistic or agonistic compounds.
 64 TCAGCCTCTATCATGTGGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG
 484 AIAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGGCGTGGCCACCTTTGCTCCCCTCTGG
 GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCGGATTCAAC
 CTGCTCATAGCCAACCTCACACAGTGGCTGATCTCCTACTGCAGGCTCCTTCAGCCCTTC
 TCTGTGGACACCTACCTCCACTGGGCGCACCGGTGCCACCTTCTGCAGGGTATTT
 TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG
 Gecaarerecreeceracreecerreecearecaeceaaecreegracesarreaae
 CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
 GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
 GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCGAAGGGG
 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGG
 ATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
 This cDNA encodes a human 7-transmembrane receptor, HNFJD15. HNFJD15
 "human 7-transmembrane receptor, HNFJD15"
 Length 1498;
 Sequence 1498 BP; 346 A; 438 C; 349 G; 365 T; 0 U; 0 Other;
 Indels
 Score 1256.4; DB 2;
Pred. No. 0;
0; Mismatches 1; I
 ΰ
 Ellis
 д,
 Bergsma
 SMIK) SMITHKLINE BEECHAM CORP
 Claim 4; Fig 1; 19pp; English.
 97EP-00309347.
 97US-00775428,
 95.8%;
ilarity 99.9%;
Conservative 0
/*tag= a
/product= '
 Fuetterer WS,
 WPI; 1998-364650/32
 Similarity
 P-PSDB; AAW62598.
 20-NOV-1997;
 09-JAN-1997;
 EP853125-A2
 15-JUL-1998
 Matches 1257;
 Sathe GM,
 169
 184
 244
 304
 Query Match
Best Local S
 49
 109
 229
 289
 349
 409
 424
 469
 364
 ò
 ,
G
 δ
 a
 \delta
 g
 ò
 g
 ò
 g
 à
 dd
 à
 g
 \delta
 q.,
 2202
 2262
 2322
 2382
 2442
 2622
 1080
 2682
 1140
 2742
 1200
 1260
 2862
CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATTC 2142
 2502
 2562
 1020
 2743 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 2802
 900
 960
 099
 720
 780
 840
 2323 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 2263 ATCCACCGCCAGGTCAAACGAGCAGAGGACTGGACCAATACAAGTTGCGACAGGA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 2443 GCTGCCACCACCCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGGATAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 2503 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 ATTAAAAGGAGCCCAGAAGGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 ATTAAAGGAGCCAGAAGGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 credaridecadardeadecreecedariderecanderrecreecadecree
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 TGTTTTGCTGTGTTCCTCTGGTTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTGCTCAACATT
 G-protein coupled receptor; HNFJD15; treatment; diagnosis; infection; HIV-1; HIV-2; cancer; screening; human; 7-transmembrane receptor; Parkinson's disease; vaccine; ss.
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 Human 7-transmembrane receptor encoding cDNA clone HNFJD15
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGGACCAAAGTGGC
 Location/Qualifiers
76. .1266
 BP.
 standard; cDNA; 1498
 (first entry)
 Homo sapiens
 07-OCT-1998
```

ö

ö

g

108 123 168 228 243 288 303 348 363 408 423 468 483 543

183

당

៧

. H

```
1008
 1068
 1128
 1143
 1188
 1083
 1144 AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1203
 TICCGCCAAGCATAIGGCTCCAIITTAAAAAGAGGCCCCGGAGTITCCAIAGGCICCAI 1248
 1204 TTCCGCCAAGCATATGGCTCCATTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCAT 1263
 964 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG
 603
 648
 663
 708
 723
 768
 783
 828
 843
 888
 903
 948
 963
 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
CCTATTTATATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGCCGG
 TTGCGACAGGCAAGCCATCCACTCCAACCATGGCCAGGACTGATGAGGGCCATGCCTGGT
 GIGACTCGAAIGTGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG
 CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
 cerradaccaccarcerdegearcracririergerregeercageagrerregearc
 TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAG
 Tretatrecercatecaececeaegreaaceaecaecaecaecaecaeceaecaaaa
 CGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT
 GAGCCAGTCAGTGCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGAC
 904 CAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAAAAAGCCCTCCAGAAGCATCTGCC
 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGGAAG
 1009 GTGACTCGAATGTGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG
 AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA
 certrocaggacorgacagerragearcagaacccagraaggaarrrcarcr
 844 GAGCCAGTCAGCGCCACCAGCCAGCCTGGAAGGGGACTCATCAGAAGTGGGAGAC
 CAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCC
 1264 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCACGACCAAAGTGGC
 544
 829
 949
 1024
 1069
 1189
 1249
 589
 724
 169
 1129
 604
 649
 664
 709
 784
 889
 g
 g.
 ò
 임
 ò
 ò
 g
 ò
 ò
 à
 g
 g
 à
 g
 à
 g
 d
 g
 ò
 ò
 ö
 ò
```

AAS98070 standard; DNA; 1546 BP 12-MAR-2002 RESULT 15
AAS98070
XX
XX
AC AAS98
XX
XX
DT 12-MA
XX
DE Human
XX
Human
XX
Alzhe
KW Alzhe
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW Ather
KW At

(first entry)

Human DNA for potential G protein-coupled receptor #27.

Human; G protein-coupled receptor; GPCR; ds; GAL4; galanin receptor; Alzheimer's disease; amyotrophic lateral sclerosis; asthma; atcherosclerosis; basal carcinoma; breast carcinoma; cardiomyopathy; chondrosarcoma; chronic obstructive pulmonary disease; Crohn's disease; depression; epilepsy; macular degeneration; lymphoma; melanoma; multiple sclerosis; osteoarthritis; osteoporosis; Parkinson's disease; psoriasis; rheumatoid arthritis; osteoporosis; Parkinson's disease; tuberculosis; cognition disorder; memory disorder; anorexia; hormonal release disorder; cardiovascular activity disorder;

The invention relates to an isolated polypeptide encoded by a nucleic acid molecule that is at least 80% identical to the G protein-coupled (GPCR) polynuclachided in the specification. Also included are probes based on the GPCR sequences (including antieense probes), a host call comprising an expression vector comprising the GPCR sequence. Carlibodies raised against the polypeptides, and methods of identifying modulators of the polypeptides are useful for repressors, agoniets or antagonies of the novel GPCR polypeptides or including the GAL4 polypeptide. The antibodies and nucleic acid probes as including the GAL4 polypeptide. The antibodies and nucleic acid probes as including the GAL4 polypeptide. The antibodies and nucleic acid probes as including the GAL4 polypeptide. The antibodies and nucleic acid probes as and nucleic acids and are used to discorders of the polypeptides. Carcinoma, brast carcinoma, are the constructive polymerical sclerosis asthma, atheroselerosis, basal cell carcinoma, brast carcinoma, actions of disease, depression, epilepsy, macular degeneration, lymphoma, melanoma, multiple sclerosis, basal cell carcinoma, schizophrenia, ulcerative collitis, tuberculosis and many other osteoarthritis, schizophrenia, ulcerative collitis, tuberculosis and many other cates disorders, observation and memory disease, portasis, hormonal crelease disorders, cardiovascular activity disorders, pain perception disorders, observations and many other cates or increase the expression of galanin receptor (GAL4) can that decrease or increase the expression of galanin receptor for the probe and such or be used to treat observy, diabetes, hyperlipidaemia and stroke. The GPCR that decrease or increase the expression of galanin receptor galaning the colling the probes and such or be used to treat observy. actures usering to above mentioned disorders by generations. The present sequence is a novel GPCR polynucleotide Novel G protein-coupled receptor polypeptides including galanin receptor polypeptides useful for identifying modulators that are useful for treating Alzheimer's disease, psoriasis, melanoma, multiple sclerosis, Gaps 0, Length 1546; pain perception disorder; obesity; diabetes; obesity; diabetes; hyperlipidaemia; stroke; gene therapy. Sequence 1546 BP; 383 A; 442 C; 351 G; 370 T; 0 U; 0 Other; Pritchard 1; Indels DB 6; Burmer G, Fabre-Suver C, 95.8%; Score 1256.4; 99.9%; Pred. No. 0; ive 0; Mismatches Disclosure; Page 130-131; 144pp; English. (LIFE-) LIFESPAN BIOSCIENCES INC. 11-MAY-2001; 2001WO-US015332. 11-MAY-2000; 2000US-0203217P. 18-MAY-2000; 2000US-0205945P. Matches 1257; Conservative Miller M, WPI; 2002-066595/09. Similarity WO200185791-A1, Homo sapiens. 15-NOV-2001. Brown JP, Query Match therapy à

readdercrateargradadadadcrereaddecaacricrecraceargradagrergra 138 139 cresecrarcerrarerrecaerracerresesses estes ste este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este este es TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG CTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTG GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCGGTACCCGATTCAAC GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC 49 79 169 199 109 d ઠે g 엄 à

| 2 2 2 8 8 9 9 9 | CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCAGGCTCCTTCAGCCCTTC 2  [     |
|-----------------|-----------------------------------------------------------------------|
| 0 4 7           | TETGREGACACCTACTCCACCACCACACACACACACACTTTTTTTT                        |
| 409<br>439      | GGACGCTACCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGG 468         |
| 469<br>499      | ATAGTGCCGCACTGGTGAGCACCTCGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG 5:        |
| 529             |                                                                       |
| 589<br>619      | CCTTACACCACCATCCTCATGGGCATCTATGTGCTTGGGCTCAGCAGTGTTGGCATC 648         |
| 649<br>679      | TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCACCACAGGCACTGGACCAATACAAG 7<br>    |
| 709             | TTGCGACAGGCAAGCATCCACTCCAACGTGGCCAGGACTGATGAGGCCATGCCTGGT 76          |
| 769             | CGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGCCCAGTGAGGGGATTTCATCT 82            |
| 829<br>859      | GAGCCAGTCAGTGCTGCCACCACCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGAC 888        |
| 889<br>919      | GGCAGAGAAAAGCCCTCCAGAAGCATCTGCC 94                                    |
| 949             | AAAGCCCAGCCATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1008<br>  |
| 600             | GTGACTCGAATGTGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG 1068     |
| 690             | CTGCTCAACATTCTGGATGCCAGAGTCCAGGTGCTCCCGGGTGGTCCACATGCTTGCT            |
| 129<br>159      | AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1188<br> |
| 9 6 1           | 4 1                                                                   |
| 4 r             | TAGAACTGTGACCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAGTGGC 1306<br>     |
|                 | -                                                                     |

Search completed: September 23, 2004, 23:57:13 Job time : 596.574 secs

```
September 24, 2004, 02:47:20; Search time 1055.3 Seconds (without alignments) 6292.206 Million cell updates/sec
 US-10-029-436-1
1311
1 ttgaatgctaggttctgatt......caggaccaaagtggcaggta 1311
 Published Applications Nat.

(gnz_6/ptodata/l/pubpna/US67 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US66 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US66 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US66 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/DS70 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US80 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US80 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US90 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US10 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US10 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US10 NEW PUB seq:*
(cgnz_6/ptodata/l/pubpna/US10 NEW PUB. seq:*
(cgnz_6/ptodata/l/pubpna/US10 NEW PUB. seq:*
(cgnz_6/ptodata/l/pubpna/US10 NEW PUB. seq:*
(cgnz_6/ptodata/l/pubpna/US60 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US60 PUBCOMB. seq:*
(cgnz_6/ptodata/l/pubpna/US60 PUBCOMB. seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 / Compugen Ltd.
 Total number of hits satisfying chosen parameters:
 3337386 segs, 2532474682 residues
 Published Applications NA:*
 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
 OM nucleic - nucleic search, using sw model
 IDENTITY NUC Gapoxt 1.0
 Minimum DB seq length: 0
Maximum DB seq length: 200000000
 Title:
Perfect score:
 Scoring table:
 Database :
 Sequence:
 Searched:
 Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

| Description                   | Sequence 1, Appli<br>Sequence 875, App | Sequence 155, App<br>Sequence 84, Appl | Sequence 1209, Ap  | Sequence 84, Appl<br>Sequence 130, App | Sequence 130, App | Sequence 37, Appl | Sequence 584, App  | Sequence 1, Appli | Sequence 11, Appl | Sequence 45, Appl |
|-------------------------------|----------------------------------------|----------------------------------------|--------------------|----------------------------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|
| SUMMARIES                     | US-10-029-436-1<br>US-09-764-853-875   | US-09-989-442-155<br>US-09-764-886-84  | US-09-764-875-1209 | US-09-764-886-84<br>US-09-764-893-130  | US-10-073-865-130 | US-09-826-508-37  | US-10-225-567A-584 | US-09-798-710-1   | US-10-073-885-11  | US-10-343-650A-45 |
| DB                            | 150                                    | 10                                     | 11                 | 13                                     | 2 5               |                   | 15                 | o                 | 15                | 13                |
| %<br>Query<br>Match Length DB | 1311                                   | 2046<br>2046                           | 2046               | 2046<br>2046                           | 2046              | 1498              | 1546               | 1595              | 1579              | 1191              |
| %<br>Query<br>Match           | 100.0                                  | 999.0                                  | 99.6               | 9<br>9<br>9<br>9<br>9                  | 9.00              | 95.9              | 95.8               | 95.8              | 95.8              | 8.06              |
| Score                         | 1311                                   | 1306                                   | 1306               | 1306<br>1306                           | 1306              | 1256.4            | 1256.4             | 1256.4            | 1255.6            | 1191              |
| Result<br>No.                 | 144                                    | Ω<br>& 4                               | יט                 | υ<br>• ~                               | ထတ                | 10                | 11                 | 12                | 13                | 14                |

180

120 120 180

g

| OY 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGCAGGTA 1311     | REGULT 2 US-09-764-853-875 ; Sequence 875, Application US/09764853 ; Patent No. US20020090672A1 | ; GENERAL INFOCMATION:<br>; APPLICANT: ASSEN et al.<br>; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies<br>; FILE REFERENCE: PJZ06 | CURRENT APPLICATION NUMBER: US/09/764,853 CURRENT FILING DATE: 2001-01-17 Prior application data removed - consult PALM or file wrapper NUMBER OF SEC ID NOS: 939 | ; SOFTWARE: Patentin Ver. 2.0<br>; SEQ ID NO 875<br>; LENTH: 2046                                                                                                                 |                                                                                                                                                                                                        | Query Match<br>Best Local S<br>Matches 1306                                                                                                | Oy 1 TTGAATGCTTAGGTTCTGATTCCCTCTTTCCACCCTCTGCCTCTTTAGCCTCTTTAGCCTCTTTCCTCTTCCACCCTCTGCCTCTTTAGCCTCTTTAGCCTCTTTCCTCTTCCTCTTCCTCTTCCTCTTTCCTCTTTCCTCT | QY 61 AIGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT               | Qy 121 TATGTTGCAGTTAGCTGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC                                                                                                                                                               | OY 181 ACCCTACTGGCCTTGGCCATCCAGCCCGAGCTCCGATTCAACCTGCTCATAGCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | OY 241 AACCTCACACTGGTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC | 9y 301 TACCTCCACTGCACTGCGCACCGGTGCCACCTTCTGCAGGTATTGGGCTCCTCCTT                            | Oy 361 TTTGCCTCCAATCTGCTCCATCCTGACCCTCTGCCTCATCGCACGGGACGCTACCTC | Oy 421 CTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA | OY 481 CTGGTGAGCACCTGGGTTGTGGGCCAGCTTTGCTCCCCTCTGGCCTATTATATACCTCCCTTGGTTTTTTTT | OY 541 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGAGGCCGAGGCCGGCC        | OY 601 AICCTCAIGGGCAICTACTITIGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTAITTGCCTC              | 661                   |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------|
| 181 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 240 | AACCTCACACTGGCTGATCTCCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACCCTCTTCACTCTCTGTGGACACCCTCTCACTCTCTCT  | OY 301 TACCTCCACCTGCCACTGGCGGTGCCACTTCTGCAGGGTATTTGGGCTCCTCTT 300                                                                               | AN 361 TITGCCICCAATTCTCTCCATCCTCACCTCCTCCCCCCTCATCGCACGCTACCTC 420                                                                                                | QY         421         CTCATHGCCCACCCHAGGTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 480           DD         421         CTCATHGCCCAACCCTAAGCTTTTTCCCCAAGTGCAAGGGGATAGTGCTGGCA 480 | Qy         481         CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC         540           Db         481         CTGGTGAGCACCTGGGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC         540 | OY 541 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGAGGCGGGGCTTACACCACC 600  Db 541 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGAGGCGGAGCCGAGGCTTACACCACC 600 | 4—4                                                                                                                                                 | 661 ATCCACGCCAGGTCAAACGAGCACCACGCGCCCCAATACAAGGTGCGACAGGCACAGCACACACCACGCAAACAAA | 721 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCTGGTTTCCAGGAG 721 AGCATCCACTGCAACCATGTGGCCAGGACTGATGAGGCCATGCTGGTTTCCAGGAG 721 AGCATGCTAACCATGTGGCCAGGACTGATGAGGCCATGCTGGTTTCCAGGAG 722 AGCATGCTAACCATGTTTTTTTTTTTTTTTTTTTTTTTT | ACAICACICACON ON ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA ACACA A | 841 GCTGCCACACACACACGAGAGGACTCATCAGAAGTGGGAGACCAGATCAACAGC       | CCACCCACCCCGGACCCCTGGAAGGGGCCTCATCAGAAGTGGGGGAACCCAAATGGGAACCAAAAGCCCTCCAGAAGCATCTGCCAAAGC | ANGAGAG IRAGCAGAGAG GAGAGAGAGAGAGAGAGAGAGAGAGAGAGA               | TGTTTTGCTGTGTTCCTCTGCCTTTGCCCTGAGGTACATCCCCTTCTTGGTGCTCAACATT      | 081 CTGGATGCCAGGCTCCCGGGTGGCCCAACTTGCTGCCACGTGTGCTGGCAGGTCGGGGGGGG              | 141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA | CAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCG<br>AAAAAGGGGGCCCCGGAGTTTCCATAGGCTCCATTAGAA | CTCCATTTTAAAAAGAGGCCC |

```
PRIOR FILING DATE: 2000-08-14
PRIOR APPLICATION NUMBER: 60/216,647
PRIOR APPLICATION NUMBER: 60/216,647
PRIOR APPLICATION NUMBER: 60/216,647
PRIOR APPLICATION NUMBER: 60/216,647
PRIOR APPLICATION NUMBER: 60/216,647
PRIOR PLING DATE: 2000-08-14
PRIOR APPLICATION NUMBER: 60/225,270
PRIOR APPLICATION NUMBER: 60/225,270
PRIOR APPLICATION NUMBER: 60/225,270
PRIOR APPLICATION NUMBER: 60/225,270
PRIOR APPLICATION NUMBER: 60/221,270
PRIOR APPLICATION NUMBER: 60/221,270
PRIOR APPLICATION NUMBER: 60/221,270
PRIOR APPLICATION NUMBER: 60/221,270
PRIOR APPLICATION NUMBER: 60/221,271
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR PLING DATE: 2000-08-14
PRIOR APPLICATION NUMBER: 60/224,518
PRIOR PLING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: 60/224,518
PRIOR PLING DATE: 2000-09-29
PRIOR PLING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/224,344
PRIOR PLING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-29
PRIOR PLING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR APPLICATION NUMBER: 60/229,345
PRIOR PLING DATE: 2000-09-01
PRIOR P
 1476
 1477 AAGAGAGCTFAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 1536
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
 117 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1776
 1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1836
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 1356
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG 1020
 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1596
 TGTTTTGCTGTGTTCCTCTGCTTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT 1080
 TATGGCTCCATTTAAAAAGAGGCCCCGGAGTTTCCATTAGGCTCCATTAGAACTGTGAC 1260
 GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC 900
 901 AAGAGGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGGCA
 AGCATCCACTCCAACCATGTGGCCCAGGACTGATGAGGCCCATGCCTGGTCGTTTCCAGGAG
 TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE RERENCE: POZOB
CURRENT APPLICATION NUMBER: US/09/989,442
FILE OF INVENTION NUMBER: 60/179,065
FRIOR PILING DATE: 2000-01-31
FRIOR PILING DATE: 2000-02-04
FRIOR APPLICATION NUMBER: 60/180,628
FRIOR APPLICATION NUMBER: 60/214,886
FRIOR APPLICATION NUMBER: 60/214,886
FRIOR APPLICATION NUMBER: 60/214,886
FRIOR PILING DATE: 2000-05-28
FRIOR FILING DATE: 2000-07-11
FRIOR APPLICATION NUMBER: 60/220,963
FRIOR PILING DATE: 2000-07-11
FRIOR APPLICATION NUMBER: 60/220,963
FRIOR FILING DATE: 2000-07-26
FRIOR PILING DATE: 2000-07-26
FRIOR PILING DATE: 2000-07-11
FRIOR APPLICATION NUMBER: 60/225,447
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
FRIOR PILING DATE: 2000-07-11
 CCTAGTCACCAGAATTCAGGACTGTCCTCCAGGACCAAAGTGGC 1306
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882
 , Sequence 155, Application US/09989442
, Publication No. US20030013649A1
, GENERAL INFORMATION:
 RESULT 3
US-09-989-442-155
 1417
 1261
 1237
 1297
 1357
 841
 961
 1021
 1597
 1081
 1657
 1141
 1837
 781
 1201
 721
 g
 g
 g
 ò
 a
 g
 g
 원
 엄
 ઠે
 ઠે
 8
 \delta
 ò
 ò
 ð
```

| NUMBER: 60/237,037<br>2000-10-02<br>NUMBER: 60/237,040<br>2000-10-02<br>NUMBER: 60/240,960<br>2000-10-13<br>NUMBER: 60/239,935<br>2000-10-13<br>NUMBER: 60/239,937<br>2000-10-13<br>NUMBER: 60/241,787<br>2000-10-10-13<br>NUMBER: 60/241,787<br>2000-10-10-10-10-10-10-10-10-10-10-10-10- | 2000-11-08 NUMBER: 60/246, 53 2000-11-08 NUMBER: 60/249, 21 2000-11-17 NUMBER: 60/226, 68 2000-08-22 NUMBER: 60/225, 21 2000-08-14 NUMBER: 60/225, 21 2000-08-14 NUMBER: 60/225, 21 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-08-14 2000-11-17 2000-11-17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | NUMBER: 60/249, 212 2000-11-17 NUMBER: 60/249, 207 2000-11-17 NUMBER: 60/249, 245 2000-11-17 NUMBER: 60/249, 211 2000-11-17 NUMBER: 60/249, 211 2000-11-17 NUMBER: 60/249, 211 2000-11-17 NUMBER: 60/249, 212 2000-11-17 NUMBER: 60/249, 214 2000-11-17 NUMBER: 60/249, 244 2000-11-17 NUMBER: 60/249, 244 2000-11-17 NUMBER: 60/249, 244 2000-11-17 NUMBER: 60/249, 240 2000-11-17 NUMBER: 60/231, 242 2000-09-18 NUMBER: 60/232, 081 2000-09-08 NUMBER: 60/232, 081 2000-09-08 NUMBER: 60/232, 080 2000-09-08 NUMBER: 60/232, 080 2000-09-08 NUMBER: 60/232, 080 2000-09-08 NUMBER: 60/232, 080 2000-09-08 NUMBER: 60/232, 080 2000-09-08 NUMBER: 60/232, 080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| APPLICATION FILING DATE: APPLICATION FILING DATE: APPLICATION FILING DATE: APPLICATION FILING DATE: APPLICATION FILING DATE: APPLICATION FILING DATE: FILING DATE: FILING DATE: FILING DATE: FILING DATE: FILING DATE: FILING DATE: FILING DATE:                                           | PPLING DATE: APPLICATION TABLICATION TABLICATION TELING DATE: PLING DATE: APPLICATION TILING DATE: APPLICATION PLING DATE: APP | APPLICATION PETLING DATE APPLICATION APPLICATION FILING DATE APPLICATION FILING DATE FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE APPLICATION FILING DATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR<br>PRIOR                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR |

601 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 660

8 8 8

```
1470 TIGAAIGCTAGGTICTGATICCCTCTTCCTCTTCCACCCTCTGCCTTTTAGCCTCTAIC 1411
 901
 1350
 1170
 361
 1110
 841
 196
 1021
 1081
 1410
 121
 1290
 241
 990
 541
 930
 661
 781
 390
 61
 301
 421
 481
 721
 g
 $ B $
 Q
 8 8 8
 8 % B
 충염
 8 8 8
 ద
 \dot{\delta}
 엄
 à
 qq
 à
 \delta
 qq
 ò
 g &
 ద
 g
 à
 В
 ò
 g
 \delta
 8
 1236
 1356
 1417 GCTGCCACCACCACCACGACCCTGGAAGGGGACTCATCAGAAGTGGGGAAGACCAGATCAACAGC 1476
 1536
 961 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
 1597 IGHTHIGHTHITT CTCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACAT 1656
 CIGGAIGCCAGAGICCAGGCICCCCGGGIGCICCACAIGCITGCIGCCAACCICACCTGG 1140
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
 1717 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1776
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1260
 1777 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1836
 ö
 1296
 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1596
 900
 960
 720
 780
 840
 9
ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 1337 ATCCACCGCCAGGTCAAACGAGCAGCACACAGGCACTGGACCAATACAAGTTGCGACAGAG
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTTTCCAGGAG
 1297 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTCCAGGAG
 841 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 1477 AAGAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCACAGCCA
 TGTTTTGCTGTGCTTCTCCTCTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCCAACATT
 901 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGGCA
 TIGAATGCTAGGTTCTGATTCCCTCTTCCTCTTCCACCTCTGCCTCTTTAGCCTCTATC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 Gaps
 RESULT 4
US-09-764 8B6-84/c
US-09-764 4B6-84/c
; Sequence 84, Application US/097648B6
; Publication No. US20030139327A9
; GENERAL INFORMATION:
; APPLICANT: ROSEN et al.
; TILE REPERBNCE: PIZO2
; CURRENT APPLICATION NUMBER: US/09/764,886
; CURRENT PILING DATE: 2001-01-17
; FILOR APPLICATION OF EMPLOYER: PER SEQUENCE: PIZO2
; CURRENT PILING DATE: 2001-01-17
; FILOR APPLICATION OF EMPLOYER: PER SEQUENCE: PIZO2
; NUMBER OF SEQUENCE: PER SEQUENCE: PIZO3
; SEQUENCE: PER SEQUENCE: PER SEQUENCE: PIZO3 B8
; SOFTWARE: PETENTIN VET: 2.0
 0
 Length 2046;
 1261 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 1837 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882
 Indels
 DB 10;
 0;
 Query Match
99.6%; Score 1306; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1306; Conservative 0; Mismatches
 TYPE: DNA
CORGANISM: Homo sapiens
US-09-764-886-84
 2046
 721
 1657
 1141
 781
 1201
 Н
 1177
 1021
 1081
 661
 LENGIH:
 à
 엄
 ద
 Д
 දු පු
 음
 ò
 음 장
 Q
 \overset{\sim}{0}
 à
 ð
 ò
 ద
 ò
 Ωp
 8 8
 ò
 원
 \delta
 g
```

- 5

1140 1080 1291 1171 1111 1051 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG 1020 720 900 180 240 Acceracidescerrescearceasceaascressiacesarreaacerscreerasce 300 360 420 840 AAGAGAGCIAAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 960 480 540 931 600 871 9 811 751 780 691 631 630 GCTGCCACCACCAGAACCCTGGAAGGGGACTCATCAGAAGTGGGAGAACCAGATCAACAGC 571 451 391 1050 crcarracceaeceraaecrititiceceaagriticaeraceaaecaaegegaragreeragea 991 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGGCTGGGCTATCGT TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGTGTGACAGGCACGGCACGGCAATGTGCTC AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 1230 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCACGCCCTTCTCTGTGGACACC TACCTCCACCTGCACTGCCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT CTGGTGAGCACCTCGGGTTGGCGTGGCCTTTGCTTCCTCCTCTGGCCTATTTATATC 601 AICCICAIGGGCAICTACTITGIGCTIGGGCTCAGCAGIGTIGGCAICTITCTAITGCCTC 810 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 750 AGCATCCACCCCAACCATGTGGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 510 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 450 IGTTTTGCTGTGTTCCTCTGTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCGCCACTGGGGACGCTACCTC CTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA CTGGTGAGCACCTGGGGTTGTGGGCGTGGCTTTGCTCCCCTCTGGCCTATTTATATC ATCCACCGCCAGGTCAAACGAGCAGCACGACTGGACCAATACAAGTTGCGACAGGCA GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC TATGTTGCAGTTAGCTGGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 181 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 870 Arcerchigadearcraetrigaderradacheacharatradearcrietratracere ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT

Fri Sep 24 14:01:04 2004

qq

8 6 ò 9

ò

8 q 8 a ઠ Бb g

ें

셤 ò g

ò

8

qq à P

Page 7

| Db                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | RESULT 7 US-09-764-893-130 is Sequence 130, Application US/09764893 ; Publication No. US202020086330A1 ; Publication No. US202020086330A1 ; GENERAL INFORMATION: is APPLICANT: Rosen et al. if TILE OF INVENTION: Nucleic Acids, Proteins, and Antibodies if FILE REFERENCE: POZ09 if CURRENT APPLICATION NUMBER: US/09/764,893 if CURRENT APPLICATION NUMBER: 2001-01-19 if Prior application data removed - consult PALM or file wrapper is SOFTWARE: PatentIn Ver. 2.0 is SEQ ID NO 130 illength: 2046 if TYPE: DNA if CORCANISM: Homo sapiens is CORCANISM: Homo sapiens if COS-09-764-893-130 | Query Match         99.6%;         Score 1306;         DB 13;         Length 2046;           Best Local Similarity 100.0%;         Pred. No. 0;         0;         0         0;         0         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0;         0; | 181 ACCTACTGGCCTTGGCCTCGGCCCAAGCTCGGTACCGGTTCAACCTGCTCATAGCC 24  181 ACCCTACTGGCCTTGGCCTTCGGCCTCGGTACCCGGTTCAACCTGCTCATAGCC 24  181 ACCCTACTGGCCTTGGCCTTCGGCCTCGTACCCGGTTCAACCTGCTCATAGCC 81  241 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTTCTTCGGCTTCTTTGGGCTCC 30  181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTTTGGGACACC 30  181 AACCTCCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTTTTGGACACC 30  181 AACCTCCACTGGCTGATCTCCTCTACTGCACGCTTCTTCTGTGGACACC 30  182 AACCTCCACTGGCTGATCTCTCTCTCTTTTTTTTTTTTT |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Best Local Similarity   100.0%;   Pred. No. 0;   Indels   0;   Gaps   0;   Matches 1306;   Conservative   0;   Mismatches   0;   Indels   0;   Gaps   0;   O;   Mismatches   1306;   Conservative   0;   Mismatches   0;   Indels   0;   Gaps   0;   O;   O;   Indels   0;   Gaps   0;   O;   O;   O;   O;   O;   O;   O; | AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC  AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC  TACCTCCACTGGACGGACCGGTGCCACCTTCTGGAGGTATTTGGCTCCTTTTTGTTTTTTTT                                                                                                                                                                                                                                                                                                                                                                                                         | GTCTCCACCTCCACCTTTGACCGCATCCCACCTCGGCCCTTACA GTCTCCACCTCCACCTTTGACCGCATCCGAGCCGGCCTTACA GTCTCACCTTGTGCTTGACCGCATCCGAGCCGGCCTTACA ATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATT CACCAAACGAGCACCACGCACCAGCAGTGTTGGCATCTTCTATT CACCAAACGAGCACCACGCACCAATACAAGTTGCGAC GTCAAACGAGCACCACGCACCAATACAAGTTGCGACAATACAACTTGCAACGACCAAGCCAAGCAAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 750 AGCHCCACTCCAACCATGTGGCCAGACTGATGAGGCCTGCTTGCT                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

us-10-029-436-1.rnpb

```
Homo sapiens
 ; ORGANISM: HOMO
US-10-073-865-130
 697
 937
 166
 1057
 1117
 601
 661
 1297
 ORGANISM:
 61
 121
 181
 361
 721
 781
 241
 301
 877
 541
 841
TYPE: DNA
 421
 481
 8
 g
 \dot{\delta}
 g
 ò
 В
 ò
 g
 ò
 g
 δ
 g
 δ
 g
 \dot{\delta}
 g
 ò
 엄
 ò
 g
 ò
 g
 \delta
 g
 \delta
 d
 à
 셤
 ð
 В
 à
 g
 ò
 1416
 1140
 1116
 1176
 1177 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCCATCTTCTATTGCCTC 1236
 1296
 1356
 1476
 1536
 1020
 1596
 1080
 1656
 1716
 1200
 1776
 1260
 1836
 540
 600
 099
 720
 780
 840
 900
 960
 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTGAACATT
 961 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 TATGGCTCCATTTTAAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 CTGGTGAGCACCTGGGTTGTGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC
 CTGGTGAGCACCTCGGGTTGTGGGGCGTGGCCTTTGCTCCCTCTGGCCTATTTATATC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 AAGAGGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 TGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGGA
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAACTGGACCAATACAAGTTGCGACAGGCA
 GCTGCCACCACCCAGCCTGGAAGGGGACTCATCAGAAGTGGGAAGACCAGATCAACAGC
 US-10-073-865-130

Sequence 130, Application US/10073865

Sequence 130, Application WS/10073865

Publication No. US20030044904A1

GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PJ205C1

CURRENT APPLICATION NUMBER: US/10/073,865

CURRENT APPLICATION NUMBER: US/10/073,865

CURRENT APPLICATION NUMBER: US/10/073,865

SPICE APPLICATION PROPER: 2002-02-14

NUMBER OF SEQ ID NOS: 154

SOFTWARE: PatentIN Ver. 2.0

LENGTH: 2046
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 CCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1882
 1057
 1237
 1477
 1537
 1597
 1657
 481
 541
 1117
 601
 661
 721
 781
 901
 1021
 1081
 1141
 1717
 1201
 1777
 1261
 qq
 Dþ
 Db
 qq
 8 S
 g
 \stackrel{>}{\delta}
 g
 \dot{\delta}
 \delta
 \dot{\delta}
 ò
 g
 \delta
 엄
 g
 ò
 qq
 ò
 à
 ò
 g
 ò
 g
 ò
 g
```

```
1176
 1236
 1356
 1416
 1056
 1296
 1417 GCTGCCACCCACCCAGCCTGGAAGGGACTCATCAGAAGTGGGAGAACCAGATCAACAG 1476
 ö
 1116
 961 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
 720
 780
 480
 540
 900
 99
 840
 900
 636
 120
 969
 180
 756
 240
 816
 300
 360
 936
 420
 1177 ATCCTCATGGGCATCTACTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 817 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 CIGGIGAGCACCIGGGITGIGGGGGGGGGCCAGCIITGCICCCCCCTCIGGCCTATITATAIC
 901 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGTGCTC
 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 TACCICCACCIGCACCIGGCGCACCGGTGCCACCTICTGCAGGGTATTTGGGGCTCCTTT
 TACCTTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 TITGCCICCAAITCTGTCTCCATCCTGACCTCTGCCTCATCGCACTGGGGACGCTACCTC
 CICATIGCCCACCCIAAGCITITICCCCCAAGTITICAGTGCCAAGGGGATAGTGCTGGCA
 crearreceaeceraaecritificeceaaerriteaereceaaegearaerecreeca
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCTTTGCTCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCAGGCACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 Gaps
 .
0
 Length 2046;
 Indels
 DB 15;
 .
0
Query Match
99.6%; Score 1306; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1306; Conservative 0; Mismatches
 1 TIGAAIGCIAGGIICIGAIICCCICI
```

us-10-029-436-1.rnpb

| Db   937   TTTGCCTCCAATTCTGTCCTGACCTCTGCCACTGGGACGCTACCTC   996                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | RESULT 10 US-09-826-508-37 Sequence 37, Application US/09826508 Sequence 37, Application US/09826508 GENERAL INFORMATION: APPLICANT: Nabli Elshourbagy APPLICANT: Lisa Vawter TITLE OF INVENTION: G Procein-Coupled Receptor Polypeptides TITLE OF INVENTION: and Polynucleotides FILE REPERENCE: GP-70744USB                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Db 1537 ATTAAAGGACCAGAAGACCCGGATCTCATCGGAATTAGGGAAGGTGACTCGAATG 1596  Qy 1021 TGTTTTGCTGTTCCTCTGCTTTGCCCTACACACTTTGGGAAGGTGACTCGAATT 1080  1597 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCACATT 1080  1081 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGACATCCCCTTCTTGCTGCTCACATT 1656  Qy 1081 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCAACTTGCTGCTGCTCACATT 1656  Qy 1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATTGCTGCCAACCTCACCTGG 1716  Qy 1201 TATGGCTCCATTAAAAAGGGCCCCGGAGTTTCCATAGAACTGCCCAAGCA 1776  Qy 1201 TATGGCTCCATTTAAAAAAGAGGGCCCCGGAGCTTCCATAGAACTGTGAC 1260  Qy 1201 TATGGCTCCATTTAAAAAAGAGGGCCCCGGAGCTTCCATAGAACTGTGAC 1366  Qy 1261 CCTAGTCCATTTAAAAAAGAGGGCCCCGGAGCTTTCCATAGAACTGTGAC 1366  Db 1777 TATGGCTCCATTTTAAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGAC 1366  Db 1777 CTCATGTCACCAGAATTCAGGAACTGTCCCATAGGCTCCATTAGAACTGTGAC 1836  Db 1777 CTCATGTCACCAGAATTCAGGAACTGTCCCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGAACTGTCCCTCCAGGACCCAAAGTGGC 1306  1837 CCTAGTCACCAGAATTCAGGAACTGTCCTCCCAGGACCCAAAGTGGC 1806 | RESULT 9  US-10-103-313-592  US-10-103-313-592  US-10-103-313-592  Sequence 592, Application US/10103313  Pubblication No. US20030082758A1  GENERAL INFORMATION:  APPLICANT: Rosen et al.  1 TITLE REPRESENCE: P020701  CURRANT PILING PARE: 2020-03-12  CURRANT PILING PARE: 2020-03-12  CURRANT PILING PARE: 2020-03-12  NUMBER: OF SEQ ID NOS: 653  SOFTWARE: Patentin Ver. 2.0  SOFTWARE: Patentin Ver. 2.0  SOFTWARE: Patentin Ver. 2.0  SOFTWARE: Patentin Ver. 2.0  TYPE: DNA  GOADALISH: 2046  TYPE: DNA  COGNISS: Homo sapiens  GUACTY MATCH  1 TIGARICATAGATACTAATTCCCTTCACACACACACACACACACAC | OY 241 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACCC 300  B17 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCTGTGGACACC 300  301 TACCTCCACCTGACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 360  B27 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 360  B27 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 336  CON 361 TTTGCCTCCAATTCTGTCTCCTGACCCTCTTCTGCAGGGTATTTGGGCTCCTCTT 336  CON 361 TTTGCCTCCAATTCTGTCTCCTGACCCTCTTCTGCAGGGTATTTGGGCTCCTCTT 336  CON 361 TTTGCCTCCAATTCTGTCTCCTGACCCTCTTCTCTCTCTTTTTTTT |

73

| Qy         94.9 AAAGCCCAGCCAATTAAAGGAGCCAGAAGACTCCGGATTCTTCATCGGAATTTGGGAAG         1008           bb         964 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG         1023           Qy         1009 GTGACTCGAATGTGTTTTGCTGTTTCCTCTGCTTTGCTGACTACTCCCTTCTTG         1068           Db         1024 GTGACTCGAATGTGTTTTGCTGTTTCCTCTGCTTTGCCTGAGCTACTCTCTTG         1083           Qy         1069 GTGACTCGAATGTTTTGCTGTTTCCTTGCTTTTCTTCTTG         1083           Qy         1129 GTGACTCGAATGTTTTGCTGTTTCCTTGCTTTTCTTTG         1083           Qy         1129 AACCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCACTGCTTTGTTGCT         1148           CTGCTCAACATTCTGGATGCAAGGTCCAGGCTCCCCGGGGTGGTCCACTGCTTGCT | RESULT 11  Sequence 584, Application US/1022567A  Febblication Work Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Color of the Co |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CURRENT APPLICATION NUMBER: US/09/826,508                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 229 CTGCTCATAGCCAACCTCAACCTGGATCTCCTCTAACGCCCTTC 288  244 CTGCTCATAGCCAACCTCAACCTGGATCTCCTCTCTCTCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

ö

```
108
 187
 168
 247
 228
 307
 288
 367
 348
 427
 408
 487
 468
 547
 607
 588
 667
 648
 727
 708
 787
 768
 847
 CTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGTGTGTGACAGGCACCGTG
 CTGCTCATAGCCCAACCTCACACGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
 CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGGCAGTGTTGGCATC
 TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG
 GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC
 GGCAATGTGCTCACCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC
 CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
 TCTGTGGACACCTACCTCCACCTGCACTGGCGCCACCGGTGCCACCTTCTGCAGGGTATTT
 TCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTT
 GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
 GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
 geacecracercarreceaceraaeerrrrececaaerrrreaerecaaee
 ATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
 Aragracioscaciostraccacciossirares de accesaciones de accesacio
 CCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
 CCTATITATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
 CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
 TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAG
 Tretatrigecreatecaceceaegreaaceaegeaegeaegecreeaegeaegaracaae
 TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT
 Gaps
 ;
0
 Length 1595
 1; Indels
 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTT
 6
 DB
 Score 1256.4;
Pred. No. 0;
0; Mismatches
TITLE OF INVENTION: No. US20020187947A1el Ger
FILE REFERENCE: 4-3122BA/H026
CURRENT APPLICATION UNDER: US/09/798,710
; CURRENT FILING DATE: 2001-03-02
; PRIOR APPLICATION NUMBER: 60/XXX,XXX
; PRIOR FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: FASISEQ for Windows Version 4.0
; SEQ ID NO 1
 95.8%;
 Query Match
Best Local Similarity 99.9
Matches 1257; Conservative
 Sapiens
 TYPE: DNA
CRGANISM: Homo
US-09-798-710-1
 1595
 128
 109
 188
 169
 248
 308
 368
 349
 409
 488
 548
 899
 788
 49
 229
 289
 428
 469
 529
 809
 589
 649
 728
 709
 LENGTH:
 \delta
 g
 ò
 g
 ò
 g
 à
 g
 ò
 g
 ò
 Dp
 \dot{\delta}
 셤
 \ddot{\circ}
 g
 8 6
 ò
 음 장
 g
 8
 合
 8 6
 1068
 1158
 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1008
 AAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1038
 AACCICACCIGGCICAAIGGIIGCAICAACCCIGIGCICIAIGCAGCCAIGAACCGCCAA 1188
 AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA 1218
 TTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCAT 1248
 TTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCAT 1278
 408
 438
 468
 498
 528
 558
 588
 618
 648
 678
 708
 738
 768
 798
 828
 858
 GAGCCAGTCAGTGCTGCCACCACCCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGC 888
 918
 948
 978
 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1336
 CCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCCGG
 GGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCTCATCGCACTG
 ATAGTECTOGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCCAGCTTTGCTCCCCTCTGG
 CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
 CCTTACACCACCATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATC
 TTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAG
 rrerarrecercarceaceaegreaaceaegeaegeaegeaegeaereaacaaracaae
 Treceacagecaagcarccacrccaaccareresecagescreareaggccargccreer
 CGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT
 CGTTTCCAGGAGCTGGACTAGCATAGCATCAGGAGGACCCAGTGAGGAGGGATTTCATCT
 CAGATCAACAGCAAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCC
 CAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAAGCATCTGCC
 GTGACTCGAATGTGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG
 GIGACTCGAAIGIGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTG
 CCTATITATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGG
 GAGCCAGTCAGTCCTCCCACCACCCAGACCTGGAAGGGGACTCATCAGAAGTGGGAAAC
 crecreacarrerearge and crasse creeked and conserved and creeked an
 GGGCTCCTCTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
 GGACGCTACCTCCTCATIGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGG
 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGG
 ATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGG
 TTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT
 RESULT 12
US-09-798-710-1
 1249
 1009
 1039
 1069
 1099
 1129
 1159
 1189
 1219
 1279
 349
 379
 409
 439
 499
 529
 583
 619
 649
 619
 709
 739
 769
 829
 859
 889
 919
 979
 469
 559
 799
 949
 5 g
 셤
 g
 g
 q
 <u>ک</u> ۾
 B & B & B
 $ B $
 ò
 ò
 8
 ò
 qq
 8
 Ś
 g
 중염
```

828

CGTTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCCAGTGAGGGGATTTCATCT CGTTTCCAGGAGCTGGACAGCAGGTAGCATCAGGAGGACCCAGTGAGGGGGATTCATCT GAGCCAGTCAGTGCTGCCACCACCCTGGAAGGGGGACTCATCAGAAGTGGGAACC GAGCCAGTCAGTGCTGCCACCACACCCTGGAAGGGAACTCATCATCAGAAGTGGGAAAC

848

829

 $\delta$ 셤

Sequence 1, Application US/09798710; Publication No. US20020187947A1; GENERAL INPORMATION:
APPLICANT: Jarai, Gabor; APPLICANT: Cooper, Paul Roy; APPLICANT: Yousefi, Shida

694

907

888

| OY 289 TCTGTGGACACCTACCACCTGGCGCACGGTGCCACCTTCTGCAGGGTATTT 348                                                                                                                                                                                                                                                                                                                        | 460 GGACGCTACCTCCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGG 51 469 ATAGTGCTGGCACTGGGTGAGCACCTGGGTTGCGCCAGCTTTGCTCCCCTCTGG 52 520 ATAGTGCTGGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCTCTGG 57 | Qy 529 CCTATTTATATCCTGGTAGTCTGCACCTGCAGCTTTGACCGGATCCGAGGCCGG 588                                                                                                                                                                                                                            | QY         649 TICTATIGCCTCATCCACGCCAGGTCAACCAGGCACAGGCACTGGACCAATACAAG 708           Db         700 TICTATIGCCTCATCCACCGCCAGGTCAACGAGCACAGGCACTGGACCAATACAAG 759           QY         709 TIGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT 768           Db         760 TIGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGT 768 | Qy         769 CGTTTCCAGGACTGGACAGCAGCTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT 828           Db         820 CGTTTCCAGGACTGGACAGCTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCT 879           Qy         829 GAGCCAGTCAGTGCTGCCCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGAC 888           Db         880 GAGCCAGTCAGTGCTGCCACCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGAC 939 | QY         889 CAGATCAACGGAAGAGGCTAAGCAGATGGCAGAAAAGCCTCCAGAAGCATCTGCC 948           Db         940 CAGATCAACAGAGAGGCTAAGCAGATGGCAGAAAAGCCCTCCAGAAGCATCTGCC 999           QY         949 AAAGCCCAGCCAATTAAAGGAGCCAGAAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG 1008           Db         1000 AAAGCCCAGCCAATTAAAAGGAGCCAGAAAGAGCTCCGGATTCTTCATCGGAAG 1059 | Oy 1009 GTGACTCGAATGTTTTGCTGTTTTGCTCTTGCTTTTGCCCTGAGCTACATCCCCTTCTTG 1068                                                                            | 1129 AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA  1180 AACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAA  1180 TACCGCCAAGCATATGCTTGCATTAAAAAGGGGCCCCGGAGTTTCCATAGGCTCAT                        | Db 1240 TTCCGCCAAGCATATGGCTCCATTTTAAAAAGGCCCCGGAGTTTCATAGGCTCCTCCAGGCTCCATTCAGGCTCCATTCAGGCTCCATTCAGGCTCCAGGCTCCATTCAGGCTCCTCCTCCAGGCCCAAAGTGGC 1306  2300 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1305  Db 1300 TAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1357 | RESULT 14 US-10-343-650A-45 ; Sequence 45, Application US/10343650A ; Publication No. US20040067499A1 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Qy         889 CAGATCAACAGCAAGAGATGGCAGAGAAAAGCCTCCAGAAGCATCTGCC         948           Db         968 CAGATCAACAAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCC         1027           Qy         949 AAAGCCCAGCCAATTAAAGAGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAG         1008           Db         1028 AAAGCCCAGCCAATTAAAAGAGAGCCAGAAGACTCCGGATTCTTCATCGGAATTTGGGAAG         1008 | OY 1009 GTGACTCGAATGTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTG 1068  1088 GTGACTCGAATGTGTTTTGCTGTGTTCTCTTTGCTTTGC                                                                         | 1129 AACCTCACCTGGCTCAATGCTGCACCCTGCTGCTGCTGCTGCTGCTGACCGCCAA 11208 AACCTCACCTGGCTCAATGCTTGCATCAACCCTGTGCTCTATGCACCCTGAACGCCAAATGCTCTAATGCACCTCTATGCAGCCATGAACGCCCAA 1208 AACCTCACTCACTCAATGCTTCAACCCTGTGCTCTTTTGCAATGCACCCAA 1189 TTCCCCAAGCATATGCCTCATTTTAAAAAGGGGCCCCGGGGTTTCCAATAGGCTCCAT | :aaaagggcccggggtttcati                                                                                                                                                                                                                                                                                                                                | US-10-073-885-11 ; Sequence 11, Application US/10073885 ; Publication No. US20030096346A1 ; GENERAL INFORMATION: ; APPLICANT: Rosen et al. ; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies ; FILE REFERENCE: PUZ03C1 ; CURRENT APPLICATION NUMBER: US/10/073,885                                                                         | CURRENT FILING DATE: 2002-02-14  PLIOT Application removed - See file Wrapper or Palm  NUMBER OF SEQ ID NOS: 116  SOFTWARE: Patentin Ver. 2.0  SEQ ID NO 11  LENGTH: 1579  TYPE: DNA  TYPE: DNA  CREANISM: Homo sapiens                                                                                                                           | FEATURE:    DOME/FORM (1554)   CONTROL INFORMATION: n equals a,t,g, or c   US-10-073-885-11   Query Match   95.8%; Score 1255.6; DB 15; Length 1579; | Matches 1255; Conservative 2; Mismatches 1; Indels ( 49 TRAGCTCTATCATGTGBAACAGCTCTACACTTCTCCTGCTACCATC  100 TCAGCYKCTATCATGTGBAACAGCTCTGACGCCAACTTCTCCTGCTACCATC  100 TCAGCYKCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATC | Qy 109 CTGGGCTATCGTATTGGGGTGGGGGGGGGGGGGGGGGGG                                                                                                                                                                                                                                                      | Oy 229 CIGCICAIAGCCAACCICACACIGGCIGAICICCICITACIGCACGCICCTICAGCCCTIC 288                              |

```
1020
 1020
 1140
 1080
 1140
 1080
 006
 960
 0
 900
 840
 960
 780
 9
 901 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 GCTGCCACCACACCCTGGAAGGGAACTCATCAGAAGTGGGAAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 841 AAGAGGTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 961 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 IGITITIGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 961 IGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGGCCAATTCCGCCAAGCA
 1081 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 781 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 61 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGTGTTGTTCTT
 0; Gaps
 1141 TATGGCTCCATTTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 TATGGCTCCATTTTAAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAG 1251
 FEATURE: OTHER INFORMATION: human G-protein coupled receptor (GPCR) TGR35
 DB 15; Length 1188;
 NAME/KEY: CDS
; LOCATION: (1)..(1188)
; OTHER INFORMATION: human G-protein coupled receptor (GPCR)
US-10-094-417-3
 0; Indels
 GENERAL INFORMATION.

JAPPLICANT: Tian, Hui

APPLICANT: Tian, Hui

APPLICANT: Chen, Jiagang

APPLICANT: Chen, Jin-Long

APPLICANT: Cutler, Gene

APPLICANT: Tularik Inc.

TITLE OF INVENTION: No. US20030045685A1e1 Rec

FILE REFERENCE: 018781-008110US

CURRENT APPLICATION NUMBER: US,10/094,417

CURRENT FILING DATE: 2002-06-10

PRIOR FILING DATE: 2001-03-09

PRIOR FILING DATE: 2001-03-09

PRIOR FILING DATE: 2001-03-09

PRIOR FILING DATE: 2001-03-09

PRIOR FILING DATE: 2001-03-16

NUMBER OF SEQ ID NOS: 43

SOFTWARE: PatentIN Ver. 2.1

SEQ ID NO 3

LENGTH: 1188
 Query Match
90.6%; Score 1188; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1188; Conservative 0; Mismatches
 Sequence 3, Application US/10094417; Publication No. US20030045685A1; GENERAL INFORMATION:
 TYPE: DNA
ORGANISM: Homo sapiens
 RESULT 15
US-10-094-417-3
 1021
 1081
 1141
 1201
 781
 841
 901
 d
 8
 ò
 ద
 ò
 g
 Š
 g
 ò
 셤
 ò
 엄
 \delta
 g
 d
 à
 240
 480
 720
 TATGTTGCAGTTAGCTGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 180
 TATGITGCAGTTAGCTGGGGGGGGGGGGGGGCGGGGCACCGTGGGCAATGTGCTC 120
 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180
 241 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 300
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 240
 TACCICCACCIGCACIGGCGCACCGGIGCCACCIICIGCAGGGIAITIGGGCICCICCII 360
 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC 420
 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC 360
 CICATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGGATAGTGCTGGCA 420
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 540
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTATATC 480
 AICCICATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCCATCTTGTATTGCCTC 660
 541 ATCCTCATGGGCATCTATGTGCTTGGGCTCAGCAGTGTTGGTTCTATTGCCTC 600
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 780
 9
 61 ATGIGGAACAGCICIGACGCCAACIICICCIGCIACCAIGAGICIGGIGCIGGGCIAICGI
 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGGATTCAACCTGCTCATAGCC
 ATCCACCCCAGGTCAAACGAGCAGCCACTGGACCAATACAAGTTGCGACAGGCA
 CTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTCAGTGCCAAGGGGATAGTGCTGGCA
 Gaps
 ö
 90.8%; Score 1191; DB 13; Length 1191; 100.0%; Pred. No. 0; ive 0; Mismatches 0; Indels 0;
GENERAL INFORMATION:

APPLICANT: HAGA, TATSUTA

TITLE OF INVENTION: NOVEL G-PROTEIN COUPLED RECEPTOR
FILE REFERENCE: 31671-186347

CURRENT APPLICATION NUMBER: US,10/343,650A

CURRENT FILING DATE: 2003-07-21

PRIOR APPLICATION NUMBER: UP 2001/34434

PRIOR FILING DATE: 2000-08-04

PRIOR APPLICATION NUMBER: UP 2001/34434

PRIOR APPLICATION NUMBER: UP 2001/34434

PRIOR PRIOR DATE: 2001-02-13

NUMBER OF SEQ ID NOS: 694

SOFTWARE: PATENTIN VEY: 2.1

SEQ ID NO 45

LIENGTH: 1191
 Best Local Similarity 100. Matches 1191; Conservative
 TYPE: DNA
ORGANISM: Homo sapiens
 ..(1191)
 ; NAME/KEY: CDS
; LOCATION: (1)
US-10-343-650A-45
 61
 121
 181
 121
 181
 301
 241
 301
 361
 481
 541
 481
 601
 661
 601
 721
 Query Match
 361
 421
 421
 199
 FEATURE:
 g
 g
 ò
 ે
 g
 ઠે
 ò
 g
 ò
 g
 g
 à
 g
 \delta
 g
 \delta
 ద
 à
 g
 g
 ò
 \delta
 8
```

Db

 oy yo

S P S

8 8

Search completed: September 24, 2004, 08:34:12 Job time: 1058.3 secs \_\_\_\_

Title: Perfect score:

Sequence:

nucleic

ĕ

Run on:

Scoring table:

Database

```
CD367121 UI-H-FT2-
CD365810 UI-H-FT2-
CD365810 UI-H-FT2-
CD365810 UI-H-FT2-
CD365810 UI-H-FT2-
CD365810 UI-H-FT2-
EM7265810 UI-H-FT2-
EM726582 UI-H-FT2-
EM736579 ELEWOS5 3
CD366344 UI-H-FT1-
EM66798 60212233
EM25409 S15424 MA
EM558181 52281 MA
EM558181 52281 MA
EM558181 52281 MA
EM558181 60164675
EM739045 UI-H-FT1-
EM758181 60164675
EM758181 60164675
EM758181 60174636
CD536450 UI-M-HD0-
CD536450 UI-M-HD0-
CD536450 UI-M-HD0-
CD536450 UI-M-HD0-
CD56450 UI-M-HD0-
CD64412 LEUKON4 3
EM664304 LEUKON4 3
EM664304 LEUKON4 3
EM664304 LEUKON4 3
EM664304 LEUKON4 3
CD464304 LEUKON4 4
EM558594 MA EM5611 V
EM67410 UM56511 V
EM73499 UM56511 V
EM73499 UM56511 V
EM73410 UM56511 V
EM73410 UM56511 V
EM73411 V
EM56772 V
EM7341 V
EM56772 V
EM7341 V
EM56772 V
EM7341 V
EM56772 V
EM7341 V
EM56771 V
EM7341 V
EM56771 V
EM7341 V
EM56771 V
EM7341 V
EM5677 V
EM7341 V
EM5677 V
EM7341 V
EM5677 V
EM7341 V
EM5677 V
EM7341 V
EM5677 V
EM7341 V
EM5677 V
EM7341 V
EM5677 V
EM7341 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM5677 V
EM567 V
EM
 Eukaryotti, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. [1 (bases 1 to 1191)]
Clark, A.G. Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Du, F., Murphy, B., Perriara, S., Wango, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, White, T.J., Sninsky, J.J., Inferring nonneutral evolution from human-chimp-mouse orthologous
 Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Clark, A.G., Glanowski, S., Nielson, R., Tuo, F., Murphy, B., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M.
 AY404787
Homo sapiens GPR84 gene, VIRTUAL TRANSCRIPT, partial sequence,
genomic survey sequence.
 Science 302 (5652), 1960-1963 (2003)
 ALIGNMENTS
 BX330186
CD365430
CD366881
 BM105642
BE502961
BG232061
 BF654980
BX511990
CD465714
CD464304
 CD536362
CD464888
CD464476
 BM726245
BX336527
 BX097926
CD470995
CD366344
BF667988
BM254098
BE958211
 BF167811
CD470023
 BE467421
BF111095
 CD470028
CD470901
 BG235994
 AY404787
AY404787.1 GI:39760764
 Homo sapiens (human)
Homo sapiens
 Direct Submission
 gene trios
 14671302
 448.4
445.6
442
426.6
 4115.4
4115.8
412.8
1399.8
392.6
392.6
 368.8
367
361.6
 386
 353.2
 352
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 LOCUS
DEFINITION
 JOURNAL
PUBMED
REFERENCE
AUTHORS
 REFERENCE
AUTHORS
 RESULT 1
AY404787
 TITLE
 TITLE
 00000
 AY404787 Homo sapi
AY404788 Pan trog1
AY404789 Mus muscu
BX348812 BX348812
 September 23, 2004, 22:14:09; Search time 3805.67 Seconds (without alignments) 10287.096 Million cell updates/sec
 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
 ttgaatgctaggttctgatt.......caggaccaaagtggcaggta 1311
 Description
 55026578
 GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
 Total number of hits satisfying chosen parameters:
 SUMMARIES
 summaries
 mode]
 AY404787
AY404788
AY404789
BX348812
 27513289 segs, 14931090276
 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
 using sw
 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
 П
 em gas vitt:

em gas fun.

em gas fun.

em gas proto:

em gas proto:

em gas vit:

em gas vitt:

em gas vitt:

em gas vitt:
 em_gss_hum:*
em_gss_inv:*
em_gss_pln:*
 Minimum DB seq length: 0 Maximum DB seq length: 20000000000
 em_esthum: *
em_estin: *
em_estin: *
em_estin: *
em_estin: *
em_estin: *
em_bestin: *
em_bestin: *
em_bestin: *
em_estin: *
 3000
 Query
Match Length DB
 US-10-029-436-1
1311
 em_estba:*
 nucleic search,
 1191
1187
1191
997
 EST: *
 90.8
85.1
67.8
60.9
```

GSS 16-DEC-2003

1116.2 889.2 798.6

Score

Result No.

| 901 AAGAGAGCTAAGCAGATG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0y 1081 CTGGATGCCAGAGTCCAGGCTCCC Db 1021 CTGGATGCCAGGCTCCAGGCTCCAGGTCCAGGTTCCAGGTTCCAGGTTCCAGGTTGCTTGACCTGTG Db 1181 CTCAATGGTTGCATCAACCTGTG Db 1201 TATGGCTCCATTTTAAAAAAGAGGGG Db 1181 TATGGCTCCATTTTAAAAAAGAGGG | RESULT 2 AY404788 LOCUS LOCUS DEFINITION Pan troglodytes GPR84 gene genomic survey sequence. ACCESSION AY404788.1 G1:39760765 KEYWORDS SOURCE ORGANISM Pan troglodytes (chimpanze ORGANISM Pan troglodytes Marmalia EMRATYORIA Metaszoa; Chorda | REFERENCE TOTAK, A.G., Glanowski, S., AUTHORS Clark, A.G., Glanowski, S., Todd, M.A., Tanenbaum, D.M., Ferriera, S., Wang, G., Zhen, TITLE Inferring nonneutral evolugene trios  JOURNAL Science 302 (3652), 1960-1  REFERENCE 2 (Bases 1 to 1187)  AUTHORS Clark, A.G., Glanowski, S., Todd, M.A., Tanenbaum, D.M., Ferriera, S., Wang, G., Zhen, | Adams, M.D. ar<br>Direct Submits<br>Submitted<br>Rockville, Mr<br>This sequence<br>them based or<br>them based or<br>Apply Apply Apply Apply Apply                                                                                                                                                                                                                 | gene <11187<br>/gene="GPR84"<br>/locus_tag="HCM20<br>Query Match<br>Best Local Similarity 94.4%; Pred<br>Matches 1121; Conservative 0; M                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JOURNAL Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA COMMENT This Sequence was made by sequencing genomic exons and ordering them based on alignment. FEATURES Location/Qualifiers Source   .191   .1191     .40 = "Genomic DNA"     .40 = "GENOMIC DNA" | y Match Local Similar hes 1191; Cor 61 ATGTG 1 ATGTGT 121 TATGTT 61 TATGTT 61 TATGTT 61 TATGTT                                                                                                                    | ACCCTACTGC ACCCTACTGC AACCTCACAC TACCTCACAC TACCTCCACAC TACCTCCACAC TACCTCCACAC TACCTCCACAC TACCTCCACAC                                                                                                                                         | 361   TTTGCCTCCAATTCTGTCTCCAACCCTCGCCTCATGGCACGCTACCTC 420                                                                                                                                                                                                                                                                                         | 481 CIGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGACCTTACACCACC 601 ATCCTCATGGGCATCTTGTGCTTGGGCTCAGCAGTGTTGCCTC 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTTTGSCATCTTCTATTGCCTC 661 ATCCACCGCCAGGTCAACGAGCACAGGCACTGGACTGAGATTGCCTC 661 ATCCACCGCCAGGTCAACGAGCACAGGCACTGGACCAATACAAGTTGCGCAGGCA 601 ATCCACCGCCAGGTCAAACGAGCAGACACAGGCACTGGACCAATACAAGTTGCGACAGGCA | QY         721 AGCATCCACTCCAACCATGTGGCCAGGCCATGCCTGGTTCGTTTCCAGGGG         780           Db         661 AGCATCCACTCTGTGGCCAGGACTGGTTGGTTGGTTGTTTCCAGGGG         780           Db         781 CTGGACAGCATTAGCATTAGCATCAGGAGGACCAGTGAGGGGATTTCATCTGAGCCAGTCAGT |

```
CGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
 TGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1080
 CCCGGGTGGTCCACATGCTTGCTGCCCACCTCACCTGG 1140
 1187 bp DNA linear GSS 16-DEC-2003
ne, VIRTUAL TRANSCRIPT, partial sequence,
 ö
 CCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG 1080
 GCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
AGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 960
 ACTICTCCTGCTACCATGAGTCTGTGCTGGGCTATGT 120
 ution from human-chimp-mouse orthologous
 data, Craniata, Vertebrata, Euteleostomi,
ates, Catarrhini, Hominidae, Pan.
 sequencing genomic exons and ordering
 , Nielson,R., Thomas,P., Kejariwal,A.,
., Civello,D.R., Lu,F., Murphy,B.,
sng,X.H., White,T.J., Sninsky,J.J.,
 , Nielson,R., Thomas,P., Kejariwal,A.,
., Civello,D.R., Lu,F., Murphy,B.,
eng,X.H., White,T.J., Shinsky,J.J.,
 0; Gaps
 Celera Genomics, 45 West Gude Drive,
 SGCCCCGGAGTTTCCATAGGCTCCATTAG 1251
 SGCCCGGGAGTTTCCATAGGCTCCATTAG 1191
 or 1116.2; DB 29; Length 1187; ed. No. 6.7e-272; Mismatches 66; Indels 0; C
 troglodytes"
mic DNA"
:9598"
 1963 (2003)
 2007"
 iers
```

g

ò

6 B 6

음 상 음

상 유 상 유 90 90 90

à

8 8 8

40 40 40 40 40

```
1191 bp DNA linear GSS 16-DEC-2003 musculus GPR84 gene, VIRTUAL TRANSCRIPT, partial sequence,
 ö
 180
 120
 180
 300
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 360
 241 TACCTCCACCTCCATTGGCGTACCGGCGCGCTTCTGTAGAATATTTGGACTCCTCCTC 300
 420
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 1191)
Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, B., Civello, R., Murphy, B., Perritera, S., Wango, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, White, T.J., Sninsky, J.J., Inferring nonneutral evolution from human-chimp-mouse orthologous
 9
 Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Clark, A.G., Glanowski, S., Nielson, R., Lu, F., Murphy, B., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Shinsky, J.J., Adams, M.D. and Cargill, M. Direct Submission

Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA
This sequence was made by sequencing genomic exons and ordering them based on alignment.

Location/Qualifiers
 241 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 ACTCTGCTGGCCTTGGCCATTCGTCCCAAGCTCCGAACCCGCTTCAACCTGCTCATTGCC
 TITGCCTCCAAITCIGICTCCCATCCTGACCTCTGCCTCAICGCACTGGGACGCTACTC
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 ATGTGGAACAGCTCAGATGCCAACTTCTCCTGCTACCATGAGTCTGTGTTGGGCTATCGA
 TATGTTGCAGTTAGCTGGGGGGGGGTGGTGTGACAGGCACCGTGGGCAATGTGCTC
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 Gaps
 Length 1191
 .,
 67.8%; Score 889.2; DB 29; Length
84.2%; Pred. No. 2.8e-214;
ive 0; Mismatches 188; Indels
 gene trios
Science 302 (5652), 1960-1963 (2003)
 1. .1191
/organism="Mus musculus"
/mol type="genomic DNA"
/db_xref="taxon:10090"
 <1. .>1191
/gene="GPR84"
/locus_tag="HCM2007"
 Mus musculus (house mouse)
 genomic survey sequence.
AY404789
AY404789.1 GI:39760766
 Query Match 67.8
Best Local Similarity 84.2
Matches 1002; Conservative
 61
 н
 121
 61
 121
 181
 301
 181
 361
 LOCUS
DEFINITION
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 PUBMED
REFERENCE
AUTHORS
 REFERENCE
AUTHORS
 TITLE
JOURNAL
 gene
 RESULT 3
AY404789
 JOURNAL
 FEATURES
 COMMENT
 ORIGIN
 q
 ð
 g
 ò
 95
Pb
 ò
 g
 ઠ
 1080
 CTCAACGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACGGCCAATTCCGCCAAGCA 1140
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
 16TTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1020
 CTCAATGGTTGCATCAACCCTGTGCTGTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
 420
 9
 960
 960
 180
 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGTGACAGGCACCGTGGGCAATGTGCTC 120
 240
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180
 AACCICACACIGGCIGAICTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 300
 240
 360
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 300
 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATGGCACTGGGACGCTACCTC 360
 480
 420
 CTGGTGAGCACCTGGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 540
 creergagcaccreecriesecriesecriesecririscricecercreecerarararara
 540
 099
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCNNNNNAGTGTTGGCATCTTCTATTGCCTC 600
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA 720
 | AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCTGGTGGTTTCCAGGAG 780
 AGCATCCACTCCAACCATGTGGCCGGGACTGATGANGCNATGCCTGGTCGTTTCCAGGAG 720
 840
 AAGAGAGNNAAGCAGAGAGGAGAGAAAAGCCCTCCAGAAGCNNCTGCCAAAGCCCAGCCA 900
9
 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGCCGGGCNTTACACCACC
 ATCCTCATGGGCATCTACTTTGTGCTTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
 ATTAAAGGAGCCAAAAGAGCTCCGGATTCTTCATCGAATTTGGGAAGGTGACTCGAATG
 1GTTTTGCTG1GTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 781 NNNNNNACCACCCAGACNNTGGAAGGGNNNNNTCAGAAGTGGGAGACCAGATCAACAGC
 AACCICACACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 TACCTCCACCTGCACTGGGGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 GCTGCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 CICATIGCCCACCCIAAGCIITITCCCCAAGIITITCAGIGCCAAGGGGAIAGIGCIGGCA
ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 106
 1021
 1081
 1021
 1141
 19
 181
 121
 241
 181
 241
 301
 421
 361
 421
 481
 601
 541
 661
 601
 721
 661
 781
 841
 901
 841
 196
 1081
 121
 301
 361
 481
 541
 961
```

g

ò

8 8 8 8

8 8 8

d

```
Full-length cDNA libraries and normalization
Unpublished (2001)
Contact: Genoscope
Contract: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Library was constructed by Life Technologies, a division of
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 6847.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi.bin/cluster.cgi?seq=CSOBAGO28ZCIO_CSO2667_l&cluster=6847.r.
Contact : From Liang Email: fliang@lifetech.com URL:
Contact : From Liang Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSOBAGO28ZCIO_CSO2667_l.
 852 CCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGCAAGAGGAGCTAA 911
 /tissue type="PLACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo (dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and ECOR V
sites of the pCMVSPORT 6 vector. Library was normalized.
 Agreraceraceacerricacedearecaagecegecrracaceaceacereareage
 375 carchachragachragachcagaagharaachartharhagachcarcacaca
 GCACTGGCGCACCGTGCCACCTTCTGCAGGTATTTGGGCTCCTCTTTTTGCCTCCAA
 75 ecacrececacedesecentereceaectaringeserecerecereceae
 rrerererectedecererecerentecarecaerecerecerecerecterere
 CCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGAATAGTGCTGGCACTGGTGAGCAC
 CATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTCATCCACCGCCA
 GGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCAAGCATCCACTC
 GGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCAAGCATCCACTC
 CAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAG
 caaccargregecaggacreargaggccargccregregerrecaggaggacaggagag
 TTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTCCTCATTGCCCA
 cecraageririrececaagriricagigecaagggaragigerggeaciggreageac
 CIGGGITGIGGGCGIGGCCAGCITIGCICCCCICIGGCCIAIIIAIAICCIGGIACCIGI
 CIGGGITGIGGGCGIGGCCAGCITIGCICCCCICTGGCCIAIIIAIAICCIGGIACCIGI
 Score 798.6; DB 13; Length 997;
Pred. No. 2.5e-191;
0; Mismatches 9; Indels 2;
 /organism="Homo sapiens"
 /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CS0DI029YE18"
 60.9%;
 Conservative
 Similarity
 Query Match
Best Local Simi
Matches 823;
 252
 312
 135
 195
 255
 552
 315
 732
 495
 15
 372
 432
 492
 612
 672
 435
 792
 source
 TITLE
JOURNAL
 FEATURES
 COMMENT
 ORIGIN
 à
 g
 à
 d
 à
 d
 ò
 d
 à
 g
 ò
 qq
 ò
 g
 ò
 qq
 ò
 a
 \delta
 qq
 ò
 DA34812 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA colone CSODI029YE18 5-PRIME, mRNA sequence.
 1140
 1020
 1080
 1020
 1080
 1140
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
 540
 480
 9
 009
 720
 9
 780
 840
 780
 900
 096
 900
 960
 480
 420
 600
 540
 720
 840
 Homo sapiens
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 997)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
 TTTACTTCCAATTCTGTCTCCATCCTCACCCTCTGTCTCATTGCTCTAGGACGCTACCTC
 CTGGTGGGCAGCTGGGGTTGTGGGGGGTGACCAGCTTTGCCCCCCCTCTGGAATGTTTTTGTC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGCGTGGGCTCTTCTACTGCCTC
 ATCCACCCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 Arccaccaccaagraagcargcagcrcaagcacraaacaaracagcracarcaagcc
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGGAGACCAGATCAACAGC
 GCTGCGACCACGCAGACCTGGAAGGTGATTCGTCAGAAGCTGGGGGCCAGGGCATTAGA
 841 AAGGCAGCTCAACAGATCGCAGAGAGAAAGCCTTCCAGAAGTGCATCGCAAGCCCCGGGAA
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 <u> acrecaegaecreceaeaeceaeaarececeareaearreaearreegaaegreaecearare</u>
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 стеватессаваетссавестоссеветоссавтествествесаваестсаетов
 1021 criccaccicadeseccerecricaccaciantesecacianes esta consecuences estas consecuences estas consecuences estas es
 1081 CTCAACAGCTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAGTTTCGCCACGCG
 crearrecedentalagementrecedagementelagescandegarecreered
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 <u> AGCATTCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG</u>
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
 cracacaccecerrecercaseacceceaccaceacaarinearereaceacacac
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 TATGGCTCCATTTTAAAAAGAGGCCCCGGGAGTTTCCATAGGCTCCATTA 1250
 TATGCCTCCATCCTGAAACGCGGGCCACAGAGTTTCCGCCGGTTCCATTA 1190
 BX348812.1 GI:30379347
 601
 901
 601
 661
 901
 421
 841
 1021
 1081
 1141
 121
 361
 481
 541
 541
 199
 721
 781
 721
 781
 196
 961
 1141
 1201
 DEFINITION
 ORGANISM
 REFERENCE
AUTHORS
 RESULT 4
BX348812
LOCUS
 ACCESSION
 VERSION
KEYWORDS
SOURCE
 qq
 g
 ПÞ
 g
 à
 g
 g
 g
 g
 ò
 Dp
 g
 ò
 g
 ò
 a
 임
 ò
 ò
 ò
 ò
 ò
 ò
 ò
 ò
 ò
 \overset{\sim}{\circ}
```

Gaps 5, 371 134 431 194 491 254 551 314 611 374 671 434 731 494 791 554 851 614

us-10-029-436-1.rst

791 691 1031

엄 ò

8 g ò

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1E 1 (Bases 1 to 903)

2E 11, Was. Gruber.C., Jessee J. and Polayes, D.

Rull-length cDNA libraries and normalization

1D Mpublished (2001)

Contact: Genoscope
Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France

Email: seqref@genoscope.cns.fr Web: www.genoscope.cns.fr

Library was constructed by Life Technologies, a division of

Invitrogen. This sequence belongs to sequence cluster 6847:r For

more information about this Cluster, see

http://www.genoscope.cns.fr/ogi-bin/cluster.cgi?seq=CSOBAKOSSDEOINM

i&cluster=6847:r. Contact: Feng Liang Email: fliang@lifetech.com

URL: http://fulllength.invitrogen.com/ InVitroGen Corporation 1600

Faraday Avenue Genoscope sequence ID: CSOBAKOSSDEOINM1.
 BX330186
BX330186 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA-COOR 25-NORMALIZED Homo sapiens CDNA-COOR 25-NORMALIZED HOMO SAPIENS CDNA-COOR 25-N
 1151
 CATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCATATGGCTCCAT 1211
 1212 TITAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGACCCTAGTCACCA 1271
 GTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATTCTGGATGCCAG 1091
 453
 392 AGTCCAGGCTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGGCTCAATGGTTG 333
 332 CATCAACCTGTGCTCTATGCAGCATGAACCGCCAATTCCGCCAAGCATATGGCTCCAT 273
 CCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAGCAAGAGAGCTAA 911
 572 GCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCCAATTAAAGGAGC 513
 452 GTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATTCTGGATGCCAG 393
 272 TITAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGACCCTAGTCACCA 213
 CAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAG
 750 CANCCATGTGGCCAGGACTGATGAGNCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAG
 972 CAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATGTGTTTTGCTGT
 512 CAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATGTGTTTTGCTGT
 AGTCCAGGCTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGGCTCAATGGTTG
 GCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCAATTAAAGGAGC
 1272 GAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 212 GAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 178
 /organism="Homo sapiens"
/mol_type="mRNA"
 Homo sapiens (human)
 Homo sapiens
 1032 (
 1152
 792
 852
 1092
 912
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 RESULT 6
BX330186/c
 LOCUS
 REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
 FEATURES
 g
 D
D
 d
 ð
 qq
 ò
 Dp
 ð
 Dp
 à
 Q
 ò
 ò
 \delta
 ò
 d
 ò
 /organism="Homo sapiens"

/mol_type="mRNA"

/mol_type="mRNA"

/db_xref="taxon:9606"

/clone="U1-H-FT2-bjp-l-20-0-U1"

/tissue_type="Aveolar Macrophage"

/dev_stage="Adult"

/dev_stage="Adult"

/lab_nost="DH10B (Life Technologies)"

/clone_lib="NCI_CGAP_FT2"

/note="Organ: Lung; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site_1: SooR i; Site_2: Not I;

/not CGAP_FT2 is a subtracted cDNA library constructed a pool of 81 RNA samples from Alveolar Macrophages challenged with different treatments. The library was subtracted according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. The tissue was provided by Dr. Gary W. Hunninghake of the University of Iowa.
TAG_IISUE=Human Lung Aveolar Macrophage
TAG_LIB=U1-H-FT2

TAG_SEQ_GGCCATGCCG"
 1031
 CD367121

909 bp mRNA linear EST 29-MAY-2003

UH-FT2-bjp-1-20-0-UI.s1 NCI CGAP.FT2 Homo sapiens CDNA clone

UI-H-FT2-bjp-1-20-0-UI 3', mRNA sequence.

CD367121
 Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Trissue Procurement: Dr. Gary W. Hunninghake, U of I
Tissue Procurement: Dr. Gary W. Hunninghake, U of I
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
http://genome.uiowa.edu/distribution/cgap.html
Seq primer: Ml3 FORWARD
POLYA=Yes.
 674
 971
 733
 793
 731
 751
 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 809) NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
615 CCAGACCTGGAAGGNGACTCATCAGAAGTGGGAGACCAGATCAACAGCAGAGGGCTAA
 675 GCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAG-CCAGCCAATTAAAGGGGG
 CAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATGTGTTTTGCTGT
 672 GGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCATCCACTC
 GTTCCTCTGCTTTGCCCTGAGCTACATCCCC-TTCTTGCTGCTCAACATTCTGG 1084
 794 GTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTCTTGCTGCTGAACATTCTTG
 3;
 Length 809;
 2; Indels
 Score 597; DB 14;
Pred. No. 3.2e-140;
0; Mismatches 2;
 Location/Qualifiers
1. 809
 CD367121.1 GI:31151211
 45.5%;
larity 99.2%;
Conservative (
 Homo sapiens (human)
 Tumor Gene Index
Unpublished (1997)
 Homo sapiens
 Query Match
Best Local Similarity
Matches 630; Conserv
 912
 972
 1032
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 source
 RESULT 5
CD367121/c
 LOCUS
DEFINITION
 REFERENCE
AUTHORS
TITLE
 JOURNAL
 COMMENT
 DRIGIN
```

7. A.

임

ò

```
/tissue_type="Acolar Macrophage"
/dev stage="Acolar Macrophage"
/dev stage="Acolar Macrophage"
/dev stage="Acolar Macrophage"
/lab_host="DH10B (Life Technologies)"
/clonelib="MCI_CGAP_FT2"
/note="Organ: Lung; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site 1: BCOR I; Site 2: NOT I;
NCI_CGAP_FT2 is a subtracted cond library constructed from a pool of 81 RNA samples from Alveolar Macrophages challenged with different treaments. The library was subtracted according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. The tissue was provided by Dr. Gary W. Hunninghake of the University of Iowa.
TAG_IISSUE-Human Lung Aveolar Macrophage
TAG_SEQ=GGCCATGCCG"
 1239 TAGGCTCCATTAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACC 1298
 Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Gary W. Hunninghake, U of I
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
http://genome.uiowa.edu/distribution/cgap.html
Seq primer: M13 FORWARD
National Cancer Institute, Cancer Genome Anatomy Project (CGAP)
 482 ATTTGGGAAGGTGACTCGAANGTGTTTTGCTGTGTTCCTCTGCTTTGCCTGAGCTACAT
 1179 GAACCGCCAATTCCGCCCAAGCATATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCA
 302 GAACCGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAAGGGGCCCCGGAGTTTCCA
 AGTGGGAGACCAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGA
 939 AGCATCTGCCAAAGCCCAGCCAATTAAAGGAGCCAAAAGAAGCTCCGGATTCTTCATCGGA
 aecarcreccaaaeccaaccaarrraaaeaaccaeaaagacreccearrerrearcea
 ATTTGGGAAGGTGACTCGAATGTGTTTTGCTGTTTCCTTTTGCCTTTGCCTACAT
 CCCCTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCGGGTGGTCCACAT
 GCTTGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCAT
 gerrrecreecaacereacereacreariserriseareacereriseretrariseaseer
 CATGCCTGGTCGTTCCAGGAGCTGGACAGCTTAGCATCAGGAGGACCCAGTGAGGG
 721 cardecresicerriceassecresacascasserrascareassassasses
 GATTICATCIGAGCCAGICAGIGCIGCCACCACCAGACCCTGGAAGGGGACICATCAGA
 Query Match
40.9%; Score 536; DB 14; Length 721;
Best Local Similarity 99.8%; Pred. No. 9.2e-125;
Matches 547; Conservative 0; Mismatches 0; Indels
 Location/Qualifiers
1. 721
Argans="Homo sapiens"
//organistype="mRNA"
//db xref="taxon:9606"
//clone="UI-H-FT2-bjj-1-21-0-UI"
 Tumor Gene Index
Unpublished (1997)
 819
 602
 542
 666
 1059
 422
 1119
 759
 879
 362
 JOURNAL
 FEATURES
 TITLE
 COMMENT
 ORIGIN
 δ
 셤
 ð
 g
 ò
 염
 à
 엄
 \stackrel{>}{\circ}
 g
 ò
 엄
 \dot{\delta}
 g
 \delta
 g
 CD365430
UI-H-FT2-bjj-l-21-0-UI.s1 NCI CGAP FT2 Homo sapiens cDNA clone
UI-H-FT2-bjj-l-21-0-UI 3', mRNA sequence.
 942 ATCTGCCAAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGGATTCTTCATCGGAATT 1001
 1061
 1121
 1181
 1182 CCGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAG 1241
 1242 GCTCCATTAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAA 1301
 ö
 941
 518
 458
 457 TGGGAAGGTGACTCGAATGTGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCC 398
 397 cricingendencarinengandecadadrecaddeneecedegiddicaedaden 338
 337 IGCIGCCAACCICACCIGGCICAAIGGIIGCATGCAICAACCCIGIGCIGCAIGCAGGCCAIGAA 278
 218
 ATACAAGTTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCAT 761
 698
 821
 638
 881
 578
 217 GCTCCATTAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAA 158
 /db_xref="taxon:9606"
/clone="CSDI01029YE18"
/tissue type="PLACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a Not1-oligo(dT)
primer: Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
 Bukaryota; Metazoa; Chordata; Craniata; Veftebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (Dases 1 to 721)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
 1002 IGGGAAGGIGACTCGAAIGIGITITIGCIGIGITCCICTGCTTTGCCCTGAGCTACAICCC
 277 cceccaarricceccaaecararescriccarriraaaaagagggccccegagrirccarag
 <u> arccaggirigoggcaggcarccarrccarccarctargreccaggacraargaggccaa</u>
 GCCTGGTCGTTTCCAGGAGGTGGACAGGTTAGCATCAGGAGGACCCAGTGAGGGAT
 GCCTGGTCTTTCCAGGAGCTGGACAGCTAGCATAGCATCAGGAGGACCCAGTGAGGAT
 577 gegagaccagarcagcaagcaagagagcraargcagargagaaaaagcccrccagaagc
 1062 CTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCACATGCT
 1122 TGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAA
 TTCATCTGAGCCAGTCAGTGCTGCCACCCAGACCCTGGAAGGGGACTCATCAGAAGT
 637 Tricaintigadecadricadrideridecanceadacerrideaagggaereareaagg
 GGGAGACCAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGC
 517 ATCTGCCAAAGCCCAATTAAAGGAGCCAAAGAGATTCTTCATCGAATT
 Gaps
 ö
 Length 903;
 Indels
 Score 587; DB 13;
Pred. No. 1.2e-137;
 0; Mismatches
 CD365430.1 GI:31149520
 44.8%;
 Homo sapiens (human)
Homo sapiens
 Conservative
 GTGGC 1306
 al Similarity
593; Conserv
 GIGGC 153
 EST
 1302
 757
 762
 697
 822
 882
 Query Match
Best Local (
 RESULT 7
CD365430/c
LOCUS
 DEFINITION
 ORGANISM
 Matches
 REFERENCE
AUTHORS
 ACCESSION
 VERSION
KEYWORDS
SOURCE
 DRIGIN
 Ob
 g
 g
 g
 g
 à
 g
 à
 \delta
 ò
 d
 ò
 qq
 à
 ઠ
 셤
 ઠ
 g
 8
 ઠે
 8
```

Ä

1; Gaps

662

1058

483

938 543

603

1118

423

1178

363

303

1104

440

g

à

```
/organism="Homo sapiens"

/mol_type="mRNA"

/mol_type="mRNA"

/db_xref="taxon:9606"

/db_xref="taxon:9606"

/dsv_stage="Mult"

/issue type="Aveolar Macrophage"

/dev_stage="Adult"

/lose="Dation (Life Technologies)"

/lone lib="NOI_CGAP_FT2"

/lone lib="NOI_CGAP_FT2"

/note="Organ: Lung; Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site 1: ECOR I; Site 2: Not I;

NOI_CGAP_FT2 is a subtracted cDNA library constructed from a pool of 81 RNA samples from Alveolar Macrophages challenged with different treatments. The library was subtracted according to Bonaldo, Lennon and Soares, Genome
 Language and the control of the cont
 CD365279 11near EST 29-MAY-2003 UI-H-TT2-bjj-k-21-0-UI.s1-NOT CGAP_FT2 Homo sapiens cDNA clone CD365279 11.H-FT2-bjj-k-21-0-UI 3', mRNA sequence.
 1225 CCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGACCCTAGTCACCAGAATTCAGGACTG 1284
 CGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTG 1164
 CICIAIGCAGCCAIGAACCGCCAATICCGCCAAGCATAIGGCICCATTIAAAAAAGAGGG 1224
 439 GCCCTGAGCTACATCCCCTTCTTGCTGCACATTCTGGATGCCAGAGTCCCAGGCTCCC 380
 379 CGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGGGTCAATGGTTGCATCAACCCTGTG 320
 259 CCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGACCCTAGTCACCAGAATTCAGGACTG 200
 319 CTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGG
 AAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCG
 985 GATTCTTCATCGGAATTTGGGAAGGTGACTCGAATGTGTTTTGCTGTGTTCCTCTGCTTT
 1045 GCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCC
 1285 TCTCCTCCAGGACCAAAGTGGC 1306
 Location/Qualifiers
1. .700
 199 rerecreedeaccadacree 178
 CD365279.1 GI:31149369
 Homo sapiens (human)
Homo sapiens
 1105
 1165
 499
 RESULT 9
CD365279/c
LOCUS
 DEFINITION
 ORGANISM
 REFERENCE
AUTHORS
TITLE
 ACCESSION
VERSION
KEYWORDS
SOURCE
 JOURNAL
 FEATURES
 ď
 g
 d
 ò
 ద
 g
 ò
 ò
 g
 ò
 à
 ö
 CD366881 736 bp mRNA linear EST 29-MAY-2003
UI-H-FTZ-bjp-k-21-0-UI.S1 NCI CGAP_FTZ Homo sapiens cDNA clone
UI-H-FTZ-bjp-k-21-0-UI 3', mRNA sequence.
 Contact: Robert Strausberg, Ph.D.
Email: cgapbs.*Gamail.nih.gov
Tissue Procurement: Dr. Gary W. Hunninghake, U of I
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
thtp://genome.uiowa.edu/distribution/cgap.html
Seq primer: MI3 FORWARD
 804
 AGGACTGATGAGNCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGA 677
 805 GGACCCAGTGAGGGGATTTCATCTGAGCCAGTGCTGCCACCACCACCAGACCCTGGAA 864
 GGACCCAGTGA-GGGATTTCATCTGAGCCAGTCAGTGCTGCCACCCACCCAGACCCTGGAA 618
 865 GGGGACTCATCAGAAGTGGGAGACCAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAG 924
 -gogactcarcagaagr-ggagaccagarcaacagcaagagagcraagcacarggcagag 560
242 TAGGCTCCATTAGAACTGTGACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACC 183
 Eukaryogram, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo. I Chases 1 to 736, NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
 745 AGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCTTAGCATCAGGA
 Gaps
 3;
 Query Match 40.0%; Score 525; DB 14; Length 736; Best Local Similarity 99.3%; Pred. No. 5.8e-122; Matches 558; Conservative 0; Mismatches 1; Indels
 location/Qualifiers
 CD366881.1 GI:31150971
 Homo sapiens (human)
 Tumor Gene Index
Unpublished (1997)
 1299 AAAGTGGC 1306
 182 AAAGTGGC 175
 Homo sapiens
 EST.
 736
 9/9
 617
 RESULT 8
CD366881/c
LOCUS
DEFINITION
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 AUTHORS
TITLE
 JOURNAL
COMMENT
 REFERENCE
 FEATURES
 ORIGIN
```

БЪ

ò

à

g

δ

```
1132
 1192
 952
 181
 Query Match
Best Local
 FEATURES
 ORIGIN
 ò
 qq
 ò
 d
 ò
 g
 ò
 В
 \delta
 g
 \stackrel{\sim}{\circ}
 셤
 \delta
 g
 660 bp mRNA linear EST 01-WAR-2002
UI-E-EJO-aih-k-10-0-UI.rl UI-E-EJO Homo sapiens cDNA clone
UI-E-EJO-aih-k-10-0-UI 5', mRNA sequence.
 щ
,
 958 CCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGA 1017
 1018 ATGRITTACCOGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGGTCAAC 1077
 1198 GCATATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGT 1257
 1138 TGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAA 1197
 837
 642
 897
 957
 524
 464
 284
 463 AIGIGITITGCIGIGITCCICTGCTTTGCCCTGAGCIACAICCCCTTCTIGCTGCTCAAC 404
 224
 641 AGT-CTGCCACCACCCAGACCCTGGAA-GGGACTCATCAGAAGTGGGAGACCAGATCAAC 584
Research, 6:791-806, 1996. The tissue was provided by Dr. Gary W. Hunninghake of the University of Iowa. TAG TISSUE-Human Lung Aveolar Macrophage TAG_LIB=UT-H-T2 TAG_SEQ=GGCCATGCCG"
 Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 660)
Bonaldo, M.F., Lennon, G. and Soares, M.B.
Normalization and subtraction: two approaches to facilitate gene
 778 GAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTC
 AGTGCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACACAGATCAAC
 898 AGCAAGAGGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAG
 583 AGCAAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAG
 GAGCTGGACAGCAGCTTAGCATCAGGAGCCCAGTGAGGGGGA-NTCATCTGAGCCAGTC
 CCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTNATCGGAATTTGGGAAGGTGACTCGA
 343 rescricaarestriscarcaaccersiscarscasses as a rescricaares as a
 Gaps
 GACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 3,
 Contact: Soares, MB
Coordinated Laboratory for Computational Genomics
University of Iowa
375 Navton Road, 4156 MEBRF, Iowa City, IA 52242, USA
Tel: 319 335 9565
 GACCCTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 175
 37.5%; Score 491; DB 14; Length 700; 99.1%; Pred. No. 2.4e-113; tive 0; Mismatches 2; Indels
 Genome Res. 6 (9), 791-806 (1996) 97044477
 BM726245.1 GI:19047578
 Homo sapiens (human)
Homo sapiens
 Conservative
 Local Similarity
nes 524; Conserv
 discovery
 8889548
 1258
 200
 838
 523
 223
 Query Match
 VERSION
KEYWORDS
SOURCE
ORGANISM
 DEFINITION
 Matches
 RESULT 10
BM726245
 REFERENCE
AUTHORS
TITLE
 MEDLINE
PUBMED
COMMENT
 ACCESSION
 JOURNAL
 DRIGIN
 d
 ò
 Db
 a
 a
 ઠ
 g
 ò
 임
 ò
 ö
 qq
 à
 ò
 d
 ò
```

```
/dev stage="fetal and adult"
//dev stage="fetal and adult"
//dev stage="fetal and adult"
//dev stage="DH10B (Life Technologies) (TI phage resistant)"
//cole=_[115="UT-E-EU0"
//note=_[07gan: eps' Vector: pT7T3-Pac (Pharmacia) with a modified polylinker; Site 1: ECOR I; Site 2: Not I;
UI-E-EU0 is a subtracted cDNA library constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand cDNA synthesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an ECOR I adaptor, digested with Not I, and cloned directionally into pT7T3-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (GT)18 tail. The sequence tags for this library are: fetal eyes, AGANTCAAGA; lens, CAGATTAGGAS, eye anterior segment, AAGACCGAT; optic nerve, CCATTAAGTG; retina, CCGC; Retina Foveal and Maculau, GTCC; RPE and Choroid, ACCTA. This library was created for the program, Gene Discovery in the Visual System, supported by National Eye Institute (NEI)."
 1011
 1071
 1131
 1191
 ö
 300
 360
 CGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCGGGAGTTTCCATAGGCTCCATTAG 1251
 120
 180
 240
 891
Email: bento-scares@ulowa.edu

Tissue Procurement: Dr. Gregg Hageman
cDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa
cDNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa
N. Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa
clone bistribution: Researchers may obtain clones from Research
Genetics (www.resgen.com).
The following repetitive elements were found in this cDNA
sequence: 599-657, >AT_rich#Low_complexity (matched compliment)
Location/Qualifiers
 9
 /mol_type="minswa" | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | colored | color
 361 CGCCAAGCAIAIGGCTCCAITITAAAAAGAGGCCCCGGAGTITCCAIAGGCTCCAITAG
 832 CCAGTCAGTGCTGCCACCACCACCTGGAAGGGGACTCATCAGAAGTGGGAGACCAG
 1 CCAGTCAGTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAG
 61 ATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAA
 GCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTG
 1012 ACTCGAATGTGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTG
 892 ATCAACAGCAAGAGGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAA
 121 goccasccaarraaassasscasaasascrocssarrorrcarcssaarringsaasss
 Actogaangretringcherentecreterecringecereaectacarecerricane
 241 crcaacarricriggargecagagrecaggerecegggregrecacargerrecrigerecease
 CTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTC
 301 crcaccredercarredricarcarcererectrarecaeccareaeccarra
 Gaps
 0;
 36.2%; Score 475; DB 12; Length 660; 100.0%; Pred. No. 2.7e-109; ive 0; Mismatches 0; Indels C
 organism="Homo sapiens"
 Best Local Similarity 100.
 . .660
```

us-10-029-436-1.rst

| 381 CATCOTACCTTCTGCAGGGTATTTGGGCCTCCTCMTTTTGCCTCCAATINTGWCTCGCAT 447 381 CATCOTGACCCTCTGCCTCATCGCACTGGGACCTACCTCTTGCCCACCCTAAGCT 440 448 CTTCTAACTGAAWTAWTAWTWAATGGGAWGATAAWTCCTAATTGCAWAWMTAAGAT 507 | TITICCCCAAGITITICAGIGCAAGGGATAGIGCGGCCTGGTGGAGACCTGGGGGCCTGGGGGTGTTTTTIMMACAGITITICAGIGCCAAGGGATAGIGCTGCCCCTGGTGGAGACCCTGGGGGCCTGGTGGTGTTTTTIMMACAGITITICAGIGCCAAGGGATAGIGCTTGCACTTGGTGCTTGCCTGGTGGTGCTTGCTTGGCTTTGGTTTTTATATCCTGGTAGTTTGCACTTGCACTTGGCTTGGCTTGGCTTGGCTTGGCTTTGATCTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTTGGTTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTTGGTGT | 859 C<br>920 C<br>920 C<br>BXO<br>BXO<br>BXO<br>BXO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>a b a</b>                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | OY Db RESULT 12 BX097926 LOCUS DEFINITION ACCESSION VEKSION KEYWORDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | REFERENCE AUTHORS TITLE JOURNAL COMMENT COMMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| QY 1252 AACTGTGACCCTAGTCACCAGAATTCACGACTGTCTCCTCCAGGACCAAAGTGGC 1306                                                                                                                                  | EXESULT 11  EX336527  EX336527  EX336527  EX Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSOD1029YE18 5-PRIME, mRNA sequence.  ACCESSION  EX336527  EX336527  EX Homo sapiens Chuman)  EX EX EX EX EX EX EX EX EX EX EX EX EX E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PEATURES  Location/Qualifiers  1. 1201  / organism="Home sapiens"  / mol_type="mRNA"  / db xref="taxon:9606"  / clone="CSD1029YEB18"  / tissue type="PLACENTA COT 25-NORMALIZED"  / clone lib="Home sapiens PLACENTA COT 25-NORMALIZED"  / clone lib="Home sapiens PLACENTA COT 25-NORMALIZED"  / clone="Ist strand cDNA was primed with a NotI-oligo(dT)  primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized." | Query Match         35.4%; Score 464; DB 13; Length 1201;           Best Local Similarity 77.9%; Pred. No. 2.3e-106;         Matches 693; Conservative 62; Mismatches 97; Indels 38; Gaps 17;           QY         49 Tragccrcrarcardrangcrcrd-acgcccartrcrcrcrcrcrcrcrcrcrcrcracact 104           Db         88 TCAGCTCTATCATCATCAGAACAGCTCTG-ACGCCAATTCTCCTGCTACCTACTGCAGT 104           QY         105 TGTGCT-GGGTATCGTTAGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGGTACGGT 163           Db         148 TGTGCT-GGGCTATCGTTAGTTGCAGTTAGCTGGGGGGTGGTGGCTGGACAGGT 207           QY         164 CGGTGGGCAATTGTTGCTGGCTTG-GCCATCCAGCTGGTGACAGGAA 207           Db         208 CCGTGGGCAATTGTTCCAGTTAGCTGGCTTG-GCCATCCAGCTCGTACCGGA 227           Db         208 CCGTGGGCAATTGTTAGCTCAACTTGGCTTG-CCATCCAGCTCCGTACCGGA 267           QY         223 TTCAACCTGGTCATAGCCAACCTCACGTGGTGATCGTCCATCATCGCAGGT 275           Db         268 TTCTAATCCTGTGGACACTCACGTCCTCTCTGTGTCTCTAATGCAGGT 327           CA         1 |

```
Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
The University of Georgia, Department of Plant Biology
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271, USA
Tel: 706 583 0210
Fax: 706 583 0210
Fax: 706 583 0210
Fax: 706 583 0210
Library constructed by Dr. Yutaka Suzuki and Dr. Sumio Sugano in
the Human Genome Center, University of Tokyo Institute of Medical
Science; tissue and RNA were prepared in the Department of Large
Animal Medicine, University of Georgia; sequencing done in the
Laboratory for Genomics and Bioinformatics, University of Georgia.
Sequence ends have been trimmed to exclude vector and regions below
Phred quality 16. Three-prime sequences are presented as their
reverse complement and have been trimmed to exclude polyA.
Seq primer: Sugs (CrTTGGTCTARAAACTGGG).
 / Jessee type="blood"
/ tissue type="blood"
/ cell type="leukocytes"
/ cell type="leukocytes"
/ lab host="milde-Ti phage-resistant E. coli"
/ clone lib="Stimulated peripheral blood leukocytes SS"
/ note="Organ: circulatory system; Vector: pWE18S-FL3;
Site l: XhoI; Site 2: XhoI; The library was prepared from polyA+ RNA from equine peripheral blood leukocytes were stimulated from a healthy adult horse. The leukocytes were stimulated for 4 hr with 10 ng/ml E. coli O55:B5 LPS.
Double-stranded cDNA was cloned unidirectionally into different DraIII sites of the pME18S-FL3 vector (5-prime DraIII site is CANCTGTGTG, 3-prime DraIII site is CANCTGTGTG, 3-prime DraIII site is CANCTGTGTG.
 CCTCTTTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGT 103
 458 cecressascerracerecerearraceceaeceraascererreceaascerracascea 517
 CTGTGCTGCGCTATCGTTATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGTGTGACAGGCA
 158 CIGIGCTAGGCTATCGTTACGTTGCAGTTAGCTGGGGGGGTGGTGGCTGTGGCTGGAGGCA
 218 CCGTGGGCAACGTGCTCACCCTGCTGGCCTTTGGCCATCCAGCCCAAGCTGCGTACCTGCT
 TCAACCTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGC
 CCTTCTGGGTGGACACCTACCTCCACCTGTACTGGCGCACCGGCGCTACCTTCTGCAGAG
 398 reminescriceremetricalecanceaerterentecancereaecenentes
 CACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCA
 98 ccccrrcaeccrecarcargraphscaacrecreargecaacrecrecrecracacgagr
 CCGTGGGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGAT
 rchaccrecricarceccharcrecaerescearcrecrereraerescerreraeres
 CCTTCTCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGG
 TATTTGGGCTCCTCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCG
 DB 14; Length
 Indels
 49;
 34.0%; Score 445.6; DB 14
90.6%; Pred. No. 7.4e-102;
tive 0; Mismatches 49;
 /organism="Equus caballus"
/mol type="mRNA"
strain="Dartmoor Pony"
/db xref="taxon:9796"
/clone="LeukoS5_3_D04_A027"
 Other ESTs: LeukoS5 3 D04.b1 A027
Contact: Cordonnier-Pratt MM
 Location/Qualifiers
 'sex="male"
 Conservative
 Similarity
 475;
 164 (
 278
 104
 344
 Query Match
Best Local S
 44
 284
 224
 338
 404
 Best Loca
Matches
JOURNAL
COMMENT
 FEATURES
 ORIGIN
 à
 g
 δ
 d
 δ
 g
 \delta
 g
 ò
 g.
 ò
 g
 8
 0
 EST 04-JUN-2003
 TTAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTG 108
 TCAGCCTCTATCATGTGGAACAGCTCTGACGCCAACTTCTCTGCTACCATGAGTCTGTG 106
 168
 166
 286
 466
 Equus caballus (horse)

Equus caballus

Equus caballus

Equus caballus

Equus caballus

Equus caballus

Mammalia; Metheria; Perissodactyla; Equidae; Equus.

1 (bases 1 to 621)

Vandemplas, M., Cordonnier-Pratt, M.-M., Suzuki, Y., Sugano, S.,

Nonce, J. W., Liang, C., Sun, F., Sullivan, R., Shah, M. and Pratt, L.H.

An EST database from equine (Equus caballus) stimulated peripheral blood leukocytes
 GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAAC 228
 226
 288
 348
 406
 GGGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG 408
 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGG 468
 CD470995 621 bp mRNA linear EST 04-JUN-2 LeukoSS 3 D04.g1 A027 Stimulated peripheral blood leukocytes S5 Equus caballus cDNA clone LeukoSS 3 D04 A027 5', mRNA sequence. CD470995
 CTGGGCTATCGTTATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTG
 credectrarcerraterrecaerraceredecedecererecerereacaceceere
 GGCAATGTGCTCACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAAC
 227 crecicaraeccaaccicacresciesciearciccicraciecacecrecicaseceric
 GGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGG
 CTGCTCATAGCCAACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTC
 TCTGTGGACACCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTT
 347 GGCTCCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTG
 Gaps
 .;
0
 34.2%; Score 448.4; DB 13; Length 496; llarity 99.8%; Pred. No. 1.3e-102; Conservative 0; Mismatches 1; Indels 0;
 ATAGTGCTGGCACTGGTGAGCACCTGGGTT 496
 ATAGIGCIGGCACTGGIGAGCACCTGGGIT 498
 CD470995.1 GI:31392263
 Query Match
Best Local Similarity
Matches 449; Conserv
 EST.
 49
 47
 601
 107
 169
 167
 229
 289
 349
 409
 407
 467
 source
 LOCUS
DEFINITION
 ORGANISM
 RESULT 13
CD470995
 ACCESSION
 VERSION
KEYWORDS
SOURCE
 REFERENCE
 AUTHORS
 TITLE
 ORIGIN
```

d

g

ò

a ò 원

ò

dd

à 셤 ò

ò

d

ò Dp

ò

Gaps

.. 0 621;

d à RESULT 14 CD366344/c LOCUS ACCESSION VERSION KEYWORDS SOURCE ORGANISM

REFERENCE AUTHORS TITLE

JOURNAL

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

En (Abases 1 to 660)

In (Masses 1 to 660)

In Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC

CDNA Library Preparation: CLONETECH Laboratories, Inc.

CLONE distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLCM1104 row, a column: 10

High quality sequence stop: 597.

Llocation/Qualifiers
 BF667988 660 bp mRNA linear EST 21-DEC-2000 60112223381 NIH_MGC_56 Homo sapiens CDNA clone IMAGE:4279185 5',
 GITITGCTGTGTTCCTCTGTTTGCCCTGAGCTACATCCCCTTTGCTGCTCAACATTC 1081
 TEGATECCAGAGTCCAGGCTCCCCGGGTGCTCCACATGCTTGCTGCCAACCTCACCTGGC 1141
 1142 TCAATGGTTGCATCACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCAT 1201
 1202 ATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAGAACTGTGACC 1261
 /Lissue type="primitive neuroectoderm"
/lab host="primitive neuroectoderm"
/lab host="DH10B (T1 phage-resistant)"
/lab host="DH10B (T1 phage-resistant)"
/lab host="Organ: Drain; Vector: pDNR-LIB (Clontech); Site_1:
Sfil (ggccgcctcggcc); Site_2: Sfil (ggccattatggcc);
Double-stranded cDNA was prepared from cell line RNA. 5'
adaptors were used in cloning as follows: 5'
adaptor sequence: 5'-CACGGCCATTATGGCC-3' and 3' adaptor
sequence: 5'-ATTCTAGAGGCCGAGGCGACATG-dT(30)BN-3'
sequence: 5'-ATTCTAGAGGCCGAGGCGACATG-dT(30)BN-3'
 460 GTTTTGCTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATTC 401
 340 TCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCAT 281
 280 Argecrecarriraaaaagaggeeeeeggagriricearaggereearragaacrefigade 221
 580 AGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGGCCCAGCCAA 521
538 CTGCCACCACCCAGACCCTGGAA-GGGACTCATCAGAAGT-GGAGACCAGATCAACAGCA 581
 902 AGAGAGCTAAAGCAGATGGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCAGCAA
 TTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATGT
 CTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 1306
 220 CTAGTCACCAGAATTCAGGACTGTCTCCTCCAGGACCAAAGTGGC 176
 /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4279185"
 mRNA sequence.
BF667988
BF667988.1 GI:11941883
 Homo sapiens (human)
Homo sapiens
 . .660
 962
 1082
 1262
 1022
 DEFINITION
 ORGANISM
 AUTHORS
TITLE
JOURNAL
COMMENT
 RESULT 15
BF667988
 VERSION
KEYWORDS
SOURCE
 ACCESSION
 REFERENCE
 g
 ò
 g
 8
 원
 ò
 Вþ
 ò
 g
 ò
 õ
 \delta
 "Location/Qualifiers

1. .650

| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
| .650
 CD366344 GEO DP MRNA linear EST 29-MAY-2003 UI-H-FTI-bjt-i-04-0-UI.S1 NCI_CGAP FTI Homo sapiens CDNA clone UI-H-FTI-bjt-i-04-0-UI 3', MRNA sequence.
 Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Gary W. Hunninghake, U of I
CONA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
http://genome.ulowa.edu/distribution/cgap.html
Seg primer: M13 FORWARD
POLYA=Yes.
 842 CTGCCACCCACCCAGACCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGCA 901
 464 AGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCC 523
 577
 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 650)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

NCI-CGAP to ancer Institute, Cancer Genome Anatomy Project (CGAP), Thmor Gene Index

Unpublished (1997)
 Query Match 33.7%; Score 442; DB 14; Length 650;
Best Local Similarity 99.6%; Pred. No. 6.2e-101;
Matches 463; Conservative 0; Mismatches 0; Indels 2; Gaps
 TCTGGCCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGC 567
 578 reresecearerararerresiscescerastriscaeersease 621
 CD366344.1 GI:31150434
 Homo sapiens (human)
Homo sapiens
 CD366344
```

FEATURES

ORIGIN

```
9
 149
 107
(where B = A, C, or G and N = A, C, G, or T). Average insert size 1.65 kb (range 0.9-4.0 kb). 15/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech Laboratories (Palò Alto, CA)."
 Gaps
 8;
 Query Match 32.5%; Score 426.6; DB 10; Length 660; Best Local Similarity 95.8%; Pred. No. 5.1e-97; Matches 503; Conservative 0; Mismatches 14; Indels 8;
```

ORIGIN

à

ò

g

임

ò

ò

569

610

525 CTGGCCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTT 569 ---GGCTATTTATATCCTGGTA-CTGTAGTCTGCACCTGGGGTTT

570

 $\delta$ 

Search completed: September 24, 2004, 04:48:24 Job time : 3811.67 secs

```
September 23, 2004, 22:04:24; Search time 4851.11 Seconds (without alignments) 10641.181 Million cell updates/sec
 US-10-029-436-1_COPY_61_1251
1191
1 atgtggaacagctctgacgc.....gtttccataggctccattag 1191
 6940544
GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
 3470272 segs, 21671516995 residues
 Total number of hits satisfying chosen parameters:
 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
 OM nucleic - nucleic search, using sw model
 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
 em_htgo_mus:*
em_htgo_other:*
 em htg other:
em htg mus: *
em htg pln: *
em htg rod: *
em htg wam: *
em htg vrt: *
 htgo_hum:*
 Minimum DB seq length: 0
Maximum DB seq length: 200000000
 ggb htg: **
ggb ov: **
ggb ov: **
ggb bht: **
gb pr: **
 em ba: *
em fun:
em hum:
em in: *
 em_sts:
em_un:*
 GenEmbl:*
 Title:
Perfect score:
Sequence:
 Scoring table:
 Database :
 Searched:
 Run on:
```

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| 20 87.8 7.4 1584 6 ARX59721 ARX59721 ARX59721 BD007520 Novel his control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the c |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

```
1020
 961 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACCATCCCCTTCTTGCTGCTCAACATT 1020
 1080
 1080
 1140
 AB083586 1191 bp DNA linear PRI 24-MAY-2002 Homo sapiens GPCR gene for putative G-protein coupled receptor, complete CDS, clone:hGPCR4.
 960
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140
 780
 780
 840
 840
 900
 900
 960
 human
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 Takeda,S., Kadowaki,S., Haga,T., Takesu,H. and Mitaku,S.
Identification of G protein-coupled receptor genes from the hume
genome sequence
Unpublished
Takeda,S., Kadowaki,S., Haga,T., Takaesu,H. and Mitaku,S.
Direct Submission
Direct Submission
Submitted (10-APR-2002) Shigeki Takeda, Gunma University,
Department of Biological and Chemical, Engineering, Faculty of
Engineering, 1-5-1, Kiryu, Gunma 376-8515, Japan
(E-mail:stakeda@beequmma-u.ac.jp, Tel:+81-277-30-1434)
 781 GCTGCCACCCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 1081 CICAAIGGIIGCAICAACCCIGIGCICIAIGCAGCCAIGAACCGCCAAITCCGCCAAGGA
 GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGGTTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGCCA
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 901 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 1GTTT1GCTGTGTGCTCTGCTTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT
 οĘ
 1141 TATGGCTCCATTTTAAAAGAGGCCCCGGGAGTTTCCATAGGCTCCATTAG 1191
 /gene="GPCR"
/note="predicted with SOSUI analysis"
/codon_start=1
 Location/Qualifiers
1. 1191
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db Aref="fexon:9606"
/clone="hGPCR4"
 AB083586
AB083586.1 GI:20152235
 1. .1191
/gene="GPCR"
1. .1191
 Homo sapiens (human)
Homo sapiens
 841
 841
 106
 721
 1021
 1081
 181
 196
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 LOCUS
DEFINITION
 AUTHORS
TITLE
 REFERENCE
AUTHORS
 TITLE
JOURNAL
 gene
 RESULT 2
AB083586
 REFERENCE
 JOURNAL
 CDS
 FEATURES
 ò
 임
 8
 g
 \delta
 g
 \delta
 쉽. 장
 d
 à
 g
 à
 g
 ò
 A61K48/00,
PC A61P43/00,C07K14/705,C07K16/28,C07K19/00,C12N1/15,C12N1/19, PC
 ö
 ы
 180
 360
 540
 600
 120
 121 ACCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180
 240
 300
 360
 420
 480
 540
 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 240
 300
 420
 480
 600
 999
 099
 720
 PC C12N5/10, C12Q1/02, C12Q1/68, G01N33/15, G01N33/50, G01N33/53, PC G01N33/56//
PC C12P21/08, C12N15/00, A61K37/02, C12N5/00
CC Novel G-protein coupled receptors
FH Key (1) (1191).
 9
 0.9
JAPAN SCIENCE AND TECHNOLOGY CORP
OS Homo sapiens (human)
PN JP 2002112793-A/23
PD 16-APR-2002
PF 09-FEB-2001 JP 2001034434
PI TATSUYA HAGA, SHIGEKI TAKEDA, NARIKI MIYAKE
PC CL2N15/09, A01K67/027, A61K38/00, A61K39/395, A61K39/395, A61K45/00,
 TITGCCTCCAATTCTGTCTCCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATOCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 121 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 181 AACCICACACTGGCTGATCTCCTCTACTGCACGCCTTCAGCCCTTCTCTGTGGACACC
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTTT
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGATAGTGCTGGCA
 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 1 Argresa Agerera Acecea Acrier ecrecia ecanda de reservados en argresa en ar
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT
 TITIGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 Gaps
 .
0
 Query Match 100.0%; Score 1191; DB 6; Length 1191; Best Local Similarity 100.0%; Pred. No. 1.2e-299; Matches 1191; Conservative 0; Mismatches 0; Indels 0;
 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGC
 C12P21/08,C12N15/00,A61K37/02,C12N5/00
Novel G-protein coupled receptors
Key
Location/Qualifiers
Location/Qualifiers
 1. .1191
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
 C12N1/
 61
 241
 241
 301
 301
 361
 361
 421
 421
 481
 601
 601
 source
 FEATURES
 COMMENT
 ORIGIN
```

g ઠે g ઠે g 8 g 8 g

à

g

à

셤  $\delta$ g ò a ò 셤

ò

ð

 $\delta$ 

```
/codon_state=1
/product="orphan g protein-coupled receptor 84"
/product="orphan g protein-coupled receptor 84"
/protein_id="AAK01857.1"
/db xref="orphan grownsyng"
/cranslation="wkwSSDANFSCYHESVLGYRVYAVSWGVVVAVTGTVGNVLTLLA-
LAIOPKLETFRNLLIANITLADLLYCTLLOPFSVDTYLH-HWRTGATFCRVFGLLLFA-
SNSVSTLTLCIIALGRYLLIAHPKLFPROFSSRGTVALAVSTWVVYASFAPIMFIYI
LVPVVCTCSFDRIRGRPYTTLIAMTYFVLGISSSVGTFYCLIHRQVRAAQALDQYKLR
QASTISHNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGD
QINSRRAKQWARKSPERASARAQPIKGARAPDSSSEFGKVTRMCFAVFRCFALSYTP
PLLINILDARVQAFRENVHMLAANLTMLNGCINPVLYAAMNRQFRQAYGSILKRGFRSF
 AF237762 1493 bp mRNA linear PRI 06-APR-2001
Homo sapiens orphan G protein-coupled receptor 84 (GPR84) mRNA,
complete cds.
AF237762 GI:12711470
 1020
 960
 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

1 (Dases 1 to 1493)

Wittenberger, T. 1893)

An expressed sequence tag (EST) data mining strategy succeeding in the discovery of new G-protein coupled receptors

J. Mol. Biol. 307 (3), 799-813 (2001)
 20246, Germany
 ATTAAAGGAGCCAGAAGAAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 <u> ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG</u>
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 TATGGCTCCATTTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 TATGGCTCCATTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG
 Hamburg
 fuer
52, H
 Loses 1 to 1493)
Wittenberger, T. and Hellebrand, S.
Direct Submission
Submitted (28-MAR-2000) ZMAH, Institut
Entwicklungsneurobiologie, Martinistr.
Location/Qualifiers
1..1493
 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
1, _1493
 59. .1259
/gene="GPR84"
 gene="GPR84"
 Homo sapiens (human)
Homo sapiens
 11273702
2 (bases
 1021
 1081
 1081
 1141
 1141
 901
 196
 196
 1021
 901
 LOCUS
DEFINITION
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
 AUTHORS
TITLE
 gene
 JOURNAL
MEDLINE
 REFERENCE
 RESULT 3
AF237762
 CDS
 FEATURES
 ORIGIN
 8, 6
 ò
 8 B
 8 & B
 8
 ò
 g
 LAIOPKURTRENILIANUTLADILYCTILOPPESUDTYLHLHWRTGATFCRVFGILLEFA
SNSVSILITCIIALGRYLTIAFRKLPPOYFSAGIVLALVSTWVGGYRSADILWIYI
INPVVCTCSPRI RESPYTTIMGIYPVLGISSVGIYLALVSTWWYGYRAAQALOPKKL
QASIHSNHVARTDEAMPGRFQELDSRLASGGPSGISSEPVSAATTQTLEGDSSBVGD
QINSKRAKQWARKSPPPASARAQPIKGARRAPDSSSBFGKVTRWCFAVFLCFALSYIP
FILLINILDARVQAPRVVHMLAANLTWLNGCINPVLYAAAMNRQFRQAYGSILKRGPRSF
HRLH"
 /product="putative G-protein coupled receptor"

/protein id="BAB89599.1"
/db_xref="G1:20152236"
/tb=arslation="MRNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLA
 099
 120
 120
 180
 180
 240
 240
 300
 300
 360
 360
 420
 420
 480
 480
 540
 540
 900
 600
 99
 720
 720
 780
 840
 840
 9
 9
 TTTGCCTCCAATTCTGTCTCCAATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCCATGCCTGGTCGTTTCCAGGAG
 121 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 CTCATTGCCCACCCTAAGCTTTTCCCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 541 Arcercardedecarcraerrierecridedecreaecagnerrescarcricrarrecere
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCTTCCAGGAG
 crecacacacatraccarcacaacaaccaagaagaaaraaagaaaarracaaccaagacaaga
 GCTGCCACCCACCCTGGAAGGGGACTCATCAGAAGTGGGGAGACCAGATCAACAGC
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 ATGIGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 TACCTCCACCTGCACTGGCGCACCGTGCCACCTTCTGCAGGGTATTTGGGCTCCTTT
 TITIGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 Gaps
 ٠,
 100.0%; Score 1191; DB 9; Length 1191; 100.0%; Pred. No. 1.2e-299; ive 0; Mismatches 0; Indels 0;
 Indels
 Query Match 100.
Best Local Similarity 100.
Matches 1191; Conservative
 61
 241
 241
 301
 421
 481
 481
 541
 601
 601
 661
 661
 721
 721
 781
 781
 121
 181
 181
 301
 361
 361
 421
```

g

à

8 8

Dp

8 8 8

 $\delta$ 

g

ò

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | RESULT 4 AR083245 LOCUS AR083245 LOCUS DEFINITION Sequence 1 from patent US 5976834. ACCESSION AR083245 VERSION AR083245.1 GI:10010035 KEYWORDS | Unknown<br>Unklass<br>Unclass<br>1 (bas<br>Sathe, C<br>CDNA cl                                                                              | Source 1. 1498;  Source 1. 1498;  Amol_type="unassigned DNA"  ONEGIN                                                                                                                                 | vative 0, Mismatches 0; ACCTCTGACGCAACTTCTCCTGCTACCATC | 61 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC  136 TATGTTGCAGTTAGCTGGGGGGGTGGTGGCTGGCTGGCCAGGCACCGTGGGCCAATGTGCTC  121 ACCCTACTGGCCTTGGCCATCCAGCCCAGCCCGTTCAACCTGCTCATGCCC  122 ACCCTACTGGCCTTGGCCATCCAGCCCAGCTCCGTACCCGGTTCAACCTGCTCATAGCC | 196 ACCTACTGGCCTGGCCATCCAGCCCAAGCTCCGTACCGATTCAACCTGGTCAAGCC 23  181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 24  256 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 31  241 TACCTCCACTGCACTGGCGCCCCCGTGCCACCTTCTGCAGGTATTTGGGCTCCTTCT 30 | Db 316 TACCICCACCIGCACTGGCGCACCGGIGCCACCTTCIGCAGGGTATTTGGGCTCCTCTT 375  Qy 301 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGGCACGCTACCTC 360  10 | 436 CTCATTGCCCAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 49 421 CTGGTGAGCACCCTGGGGTTGTGGGGCAGCTTTTCAGTGCCCCTCTGGCCTATTTATATC 48 421 CTGGTGAGCACCTGGGGTTGTGGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC 48 481 CTGGTACCTGTAGTCTGCAGCGTGGCGAGCTTTGACCGCAGCCGGCCTTATATATC 55 481 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGGCC                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Query Match         100.0%;         Score 1191;         DB 9;         Length 1493;           Best Local Similarity 100.0%;         Pred. No. 1.2e-299;         O. Gaps         O.           Matches 1191;         Conservative 0;         Mismatches 0;         Indels 0;         Gaps 0;           Qy         1 ATGTGGAACAGCTCTGACGCAACTTCTCCTGCTAGGTCTGTGCTGGGCTATCGT 6         D.         69 ATGTGGAACAGCTCTGACGCAACTTCTCCTGCTACCTGTGCTGGGCTATCGT 128           Qy         61 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGGGGGG | 121 ACCCTACTGGCCATCCAGCCCAAGCTCCGTACCGGATCAACCTGCTCATAGCC 180                                                                                   | 1 TACCTCCACCTGCACTGGGGCACCGGTGCCACTTCTGCAGGGTATTTGGGCTCCTCTTTTGCACTCCTCCTTTTTGCACTGCACTGCACTGCACTGCACTGCACTTCTGCAGGGTATTTGGGCTCCTTCTTTTTTTT | 361 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 420  429 CTCATTGCCCACCTAAGCTTTTTCCCCAAGTGCCAAGGGGATAGTGCTGGCA 488  421 CTGGTGAGCACCTGGGTTGTGGGGTGGCCAAGTGTTGCTGCCTGGCCTATTATATC 480 | 81 CTGGTACCTGTAGTCTGCAGCTGCAGCTTTGACCGATCCGAGGCCGGCC   | ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC ATCCACCGCCAGGTCAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA ATCCACCGCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA ATCCACCGCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA                  | 661 AGCATCCAACCAACCATGTGGCCAGGACTGATGAGGCCATGCTGGTTGTCCAGGAG 720                                                                                                                                                                                                            | 781 GCTGCCACCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGCCAGATCAACAGC 840                                                                                 | 909 AAGAGAGCTAAGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCCAAGCCCAGCCCA 968 901 ATTAAAGGAGCCAGAAGAAAAAGCCCTCCGGAATTTGGGAAGGTGACTCGAATG 960 969 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1028 961 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGTTCCTCCTTCTTGCTGGTGCTCGAATG 1028 1029 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGTTCCTCCTTCTTGCTGGTCAACATT 1088 1021 CTGGATGCCAGAGTCCTCGGGTTGCCCTGAGCTCCCTTCTTGCTGCTCAACATT 1088 |

| Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M., Butterfield,Y.S., Krzywinski,M.I., Saklska,U., Smailus,D.E., Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences  JOURNAL 22388257  PUBBED 12477932  REFERENCE 2 (bases 1 to 1535)  AUTHORS Straubberg,R.  JOURNAL Submitted (03-JAN-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA  REMARK Contact: MGC help desk CONTACT: MGC help d | Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLML at: http://image.llnl.gov Series: IRAL Plate: 35 Row: K Column: 17 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 9966838.  FEATURES  I. 1535  Acation/Qualifiers  I. 1536  Acation-Qualifiers  Acation-Qualifiers  Acation-Qualifiers  Acation-Septembra  Adb_xref="RENA"   MAGE: 4279185"    Actione="MGC: 22224 IMAGE: 4279185"    Actione="Ibe="NHC"   Action="Ibe="NHC"    Actione="Ibe="NHC"   Action="Ibe="NHC"    Actione="Ibe="NHC"    Actione="Ibe="NHC"    Actione="Ibe="NHC"    Actione="Ibe="NHC"    Actione="Ibe="NHC"    Actione="Ibe"    Act | feature 33 FF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Qy         541 ATCCTCATGGCATCTACTTGTGCTTGGGCTCAGCAGTGTTGGCTCTCTATTGCCTC         600           bb         616 ATCCTCATGGGCATCTTGTGCTTGGCTTGGCTTGGCTTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Oy         961 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCTCCTCTACATT 1020           Db         1036 TGTTTTGCTGTTCCTCTGCTTTGCCTTGCTGCTCCTCTTGCTGC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | BC020614  BC020614  BC020614  BC020614  BC020614  BC020614  BC022224 IMAGE:427918B), complete cds.  ACCESSION  BC020614  BC02061  BC020614  BC0206 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | RESULT 6 AX549299 LOCUS LOCUS DEPINITION Sequence 584 from Patent WO02061087. ACCESSION AX549290 VERSION AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX549290 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX54929 TOTAL AX549 | Ouery March   100 08; Score 1191; DB 6; Length 1546; Best Local Similarity 100 08; Pred No. 1.2e-299, Indels 0; Gaps 0; Matches 1191; Conservative 0; Mismarches 0; Indels 0; Gaps 0; Organ 1191; Conservative 0; Mismarches 0; Indels 0; Gaps 0; Organ 1191; Conservative 0; Mismarches 0; Indels 0; Gaps 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Organ 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservative 0; Ouer 1191; Conservati |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Query Match         100.0%;         Score 1191;         DB 9;         Length 1535;           Best Local Similarity         100.0%;         Pred. No. 1.2e-299;         0;         Gaps         0;           Matches 1191;         Conservative         0;         Mismatches         0;         Indels         0;         Gaps         0;           Qy         10.1 ATGTGGAACAGCTCTGACGCAACTTCTCCTGCTACCATGAGTCTGGCTATGGT         160         160         160         160         160         160           Qy         61 TATGTTGCAGTTAGCTGGGGGTGGTGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC         120         120         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161         161 | 121 ACCCTACTGGCCTTGGCCATCCAGCTCCGTACCGATTCAACCTGCTCATAGCC 180                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | STATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| FEATURES  Location/Qualifiers  1. 1546  / Organism="Homo sapiens"  / mol type="mmNA"  / db xref="taxon:9606"  1. 1581  / Gene="EX3"  / gene="EX3"  / gene="EX3"  / gene="EX3"  / codon start=" / product="inflammation-related G protein-coupled receptor Ex3"  / protein id="AAF91467.1"  / db xref="G1:965261"  / translation="MMNSSDAMFSCYHESVLGYRYVAVSWGVVVAVTTLLA LAIOPKLRTRFNLLIANITLADLLYCTLLQPFSNGTYLHLHWRTGAPFRENDYLL LNPVVCTCSPRIRGRPYTTILMGTYFVLGSSGGTYTTWOWARAQALDOYKLR  QASIHSMNHAMTDEAMPGRENDERFENDERSERGENTEROYKERSPERGENSERGENTEROYKERAPONSERGENDERSERGENTEROYKERAPONSERGENDERSPERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENSERGENTERORISSTERGENTERORISSTERGENSERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENTERORISSTERGENT | ORIGIN  Query Match 100.0%; Score 1191; DB 9; Length 1546; Best Local Similarity 100.0%; Pred. No. 1.2e-299; Matches 1191; Conservative 0; Mismatches 0; Indels 0; Gaps 0;                                    | Oy 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 60  1 | Oy 61 TATGITGCAGITAGCTGGGGGGTGGTGGCTGTGACAGCCACGTGGGCAATGTGCTC 120    | QY         121 ACCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180 | Oy 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 240     | Oy 241 TACCTCCACTGCACTGGCGCACCGGTGCCCTTCTGCAGGGTATTTGGGCTCCTCTT 300 |                                                                   | GCTGCACCTGCAGCTTTGACCGCATCCGCTCTGGCCTTACACCACC GTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGGCCTTACACCACC GTCTGCACCTGCAGCCTTACACCGCGTTACACCACC                                                                                                                                                                                          | Oy 541 AICCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 600                                | QY         601 ATCCACCGCCAGGTCAAAGGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA 660           DD         691 ATCCACCGCCAGGTCAAACGAGCACAGAGCACAGGACCAATACAATACAAGTTGCGACAGGCA 750 |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Qy   Qy   Qy   Qy   CTGGTACCTGTAGTCTGCAGCTTTGACCGCATCCGAGGCCGTTACACCACC   Qy   Qy   CTGGTACCTGTAGTCTGCACCTGCAGCCGTTCCGAGGCCGCTTACACCACC   Qy   CTGGGTACCTGTAGTCTTGAGCTTTGACCTGCAGCCGTTTGACCTTCGACCGCGCCTTTACACCACC   Qy   Qy   ATCCTCATGGGCTCTACTTTGTGCTTGGGCTCGAGCAGTTTGCCTC   Qy   Qy   ATCCACCGCCAGGTCTTGTGCTTGGCTCGACCAGTTTGCCTC   Qy   Qy   ATCCACCGCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA   Go   Db   ATCCACCGCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA   Go   ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA   TO   Qy   ATCCACCGCCAGGTCATGCAGCACCAGGCACTGGACCAATACAAGTTGCGACAGGCA   TO   Qy   ATCCACCACCATGAGCAGCACTGAGCAATACAAGTTGCACTCAGGAG   Qy   ATCCACCACCATGAGCAGCACTGAATACAAGTTGCACTCAGGAGGATTTCATCTCAGGAGGATTTCATCTCAGGAGGAGTTTCATCTCAGGAGGATTTCATCTCAGGAGGATTTCATCTCAGGAGGATTTCATCTAGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Db 871 GCTGCCACCACACCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC 930  Qy 841 AAGAGGGTAAGGAGAAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCA 900  Db 931 AAGAGAGCTAAGGAGAATGGCAGACAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCACA 990 | QY 901 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 960 | QY 961 TGTTTGGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGGTGCTCAACATT 1020 | QY         1021         CTGGATGCCAGAGTCCAGGTCCCCGGGTGGTCCACATGCTTGCT           | OY 1081 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140 | Qy 1141 TATGGCTCCATTTTAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191     | ULT 7<br>82693<br>US<br>US<br>INITIO<br>INITIO<br>ESSION<br>WORDS | OKGANISM FOND SUBJECTS  BUKATYOLA; MELAZOA; Chordata; Craniata; Vertebrata; Buteleostomi;  Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.  REFERENCE I (bases 1 to 1546)  AUTHORS Yousefi,S., Cooper,P.R., Potter,S.L., Mueck,B. and Jarai,G.  TITLE Cloning and expression analysis of a novel G-protein-coupled | receptor selectively expressed on granulocytes<br>J. Leukoc. Biol. 69 (6), 1045-1052 (2001)<br>1204471 | REFERENCE 2 (bases 1 to 1546) AUTHORS Yousei,S., Cooper,P., Mueck,B., Potter,S. and Jarai,G. TITLE Direct Submission                                                      | NAL |

· ...

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1 CTGARCAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGGGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3     3 <td>8 8 8 8 8 8 8 8</td> <td>8 8 8 8 8 8 8 8 8</td> <td>D O O O O O O O O O O O O O O O O O O O</td> | 8 8 8 8 8 8 8 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8 8 8 8 8 8 8 8 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | D O O O O O O O O O O O O O O O O O O O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| -0 H-H D-D 4-4 D-D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 961 TGTTTGCTGTGTTTGCCTGAGCTACATCCCCTTGCTGCTGAACATT 1020  1051 TGTTTGCTGTGTTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1110  1051 TGTTTGCTGTTTCCTCTGCTTTGCCTGAGCTACATCCCCTTCTTGCTGCTCAACTT 1110  0y 1021 CTGGATGCCAGAGTCCAGGTGCTCCCGGGTGGTCCAACTCTGCTGCCAACTT 1110  1111 CTGGATGCCAGAGTCCAGGTCCCCGGGTGGTCCAACTTGCTGCCAACTCACCTGG 1170  0y 1081 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCAATTCCGCCAAGCA 1140  1111 TATGGCTCCATTTAAAAAGGGGCCCCGAGTTCCATAGGCTCCATTAG 1191  11231 TATGGCTCCATTTAAAAAAGGGGCCCCGGAGTTCCATAGGCTCCATTAG 1191  11231 TATGGCTCCATTTAAAAAAGGGGCCCCGGAGTTCCATAGGCTCCATTAG 1191  11231 TATGGCTCCATTTAAAAAAGGGGCCCCGGAGTTCCATAGGCTCCATTAG 1191  11231 TATGGCTCCATTTAAAAAAGGGGCCCCGGAGTTCCATAGGCTCCATTAG 1201 | RESULT 8  AX247564 LOCUS AX247564 AX247564 LOCUS BEFINITION AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX247564 AX24756 AX247564 AX247564 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX24756 AX2476 AX24756 AX24756 AX24 | ORIGIN         /mol_type="unassigned DNA"           ORIGIN         /db_xref="taxon:9606"           Ouery Match         100.0%; Score 1191; DB 6; Length 1595;           Best Local Similarity         100.0%; Pred. No. 1.2e-299;           Matches 1191; Conservative         0; Mismatches         0; Indels         0; Gaps         0;           QY           ATGTGGAACAGCTCTGACGCAACTTCTCCTGCTACCATGAGTCTGTGGGGTATCGT         0           ATGTGGAACAGCTCTGACGCAACTTCTCCTGCTACCATGAGTCGTGGGGGATTCGT         199           QY           ATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGTGGTGGCAACTGTGTGTG |

```
SEQUENCING READ COVERAGE:Sequencing is completed to a minimum standard of double strand coverage with a minimum of 2 clones and 2 reads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 reads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the annotation as Low Coverage.
 CLONE LENGTH: This sequence does not necessarily represent the entire insert of this clone. Overlapping regions of clones are only sequenced and submitted once, so the sequence for the remainder of the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the Peatures listing.
 ANNOTATION OF FEATURES:

STGS are identified using ePCR (Genome Res. 7:541-550) searches of a local database that includes entries from dbSTS, GDB, and local mapping efforts.

Repeats are identified using RepeatMasker (A. Smit and P. Green, unpublished.) for luman and Mouse sequences. Genes and Region of sequence similarity are identified by BLAST (Nuc. Acids Res. 25:3389-3402) similarity (expect < 1e-34) to the EST and cDMA sequences. Genes demonstrate at least two exons flanked by consensus splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.
 http://www.hgsc.bcm.tmc.edu:8088/quality.info/genbank.annotation.ht
Worley, K.C.
Submission
Submitted (21-PEB-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
Daylor Plaza, Houston, TX 77030, USA
INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email
 QUALITY OF INDIVIDUAL BASES:This sequence meets stringent quality standards - estimated error rate less than 1 per 10,000 bases. Reports of lowest quality individual bases and measures of base quality are listed below. Description of the metrics can be found
 .2005 of clone AC079313'
 /standard name="RH78595"
18349. 18457
/standard name="D1281927"
19062. 19188
/standard name="Bdya3g12"
71395. 71512
 460. .659
/standard_name="RH158"
18075. .18234
/standard_name="NIB1371"
18111. .18242
/standard_name="A002C47"
 1. .141003
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="12"
/clone="RP11-968A15"
 'standard_name="D11S2560"
 /standard_name="D12S1994"
 function="clone overlap"
 /standard_name="WI-7866"
77500. 77704
 standard_name="RH44735"
 complement(1. .2005)
/note="overlaps bases 1.
 Location/Qualifiers
 18229. .18400
 77459.
 at URL
 misc_feature
 source
 AUTHORS
TITLE
JOURNAL
 SIS
 STS
 STS
 STS
 STS
 SIS
 FEATURES
 COMMENT
 ENKARYOCA, MELAZOB, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Bukharia, Primates; Catarrhini, Hominidae, Homo.

BENKARYOCA, MELARIA, C. Adio-Oduola, B. Ali-osman, F.R., Allen, C. Alabrooke, S.L., Amaratunog, H.C., Barwal, M. Banks, T., Barbaria, U., Benker, C., Burch, D., Burket, C., Burch, M. Barks, T., Barbaria, U., Benker, C., Burch, D., Brayal, K., Bonnin, D., Buck, J., Bonde, S., Brick, M. Barks, T., Barbaria, C. Berch, M. Barks, T., Barbaria, C. Berch, M. Barks, T., Barbaria, C. Carter, M., Edwards, S.R., Chacko, J., Charvez, D., Chen, Z., Chiu, D., Chochky, I., Christopoulos, C. Chen, Z., Chiu, D., Chochky, I., Christopoulos, C. Chen, Z., Chiu, D., Chochky, I., Dayla, C., Dayla, M. Dallaney, K. Delgado, O., Denn, A.L., Dedarich, D. A., Dollaney, K. Delgado, O., Denn, A.L., Dedarich, D. A., Dollaney, K. Palls, T., Farraguto, D., Flagy, M. Ford, J. Foster, P., Frantz, P., Gabisi, A., Gao, J., Garia, A., Garner, T., Garier, M., Hann, J., Harris, C., Harris, M., Han, J., Harris, C., Harris, M., Harris, M., Han, J., Harris, C., Harris, M., Halls, S., Harlinon, R., Hollins, B., Mackeon, L., Mochaba, M., Hoges, M., Harris, C., Lollins, B., Look, B., Jak, M., Mathiney, B., Mcter, R., Mathiney, B., Mcter, R., Mathiney, B., Mcter, R., Moldah, R., Mathiney, B., Mcter, M., Miller, A., Mathiney, B., Mcter, M., Mathiney, B., Mcter, M., Miller, A., Mathiney, B., Mathiney, B., Mcter, M., Miller, A., Mathiney, B., Mcter, M., Mcterson, E., Mocka, M., Mathiney, B., Mathiney, B., Mathiney, B., Mathiney, B., Mathiney, B., Mathiney, B.,
 Direct Submission
Submitted (03-AUG-2000) Human Genome Sequencing Center, Department
End following Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
(bases 1 to 141003)
 Direct Submission
Submitted (27-AUG-2002) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
(bases 1 to 141003)
 Direct Submission
Submitted (25-SEP-2002) Human Genome Sequencing Center, Department
of Molecular and Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
5 (bases 1 to 141003)
Homo sapiens 12 BAC RP11-968A15 (Roswell Park Cancer Institute
Human BAC Library) complete sequence.
 AC078778
AC078778.34 GI:23307958
 Unpublished
2 (bases 1 to 141003)
Worley, K.C.
 Homo sapiens (human)
 Homo sapiens
 Worley, K
 Worley, K
 DEFINITION
 ORGANISM
 AUTHORS
TITLE
JOURNAL
 AUTHORS
TITLE
JOURNAL
 REFERENCE
AUTHORS
TITLE
JOURNAL
 REFERENCE
AUTHORS
 ACCESSION
 REFERENCE
 REFERENCE
 REFERENCE
 VERSION
KEYWORDS
SOURCE
```

ô

180 326 240 446 360 506 420 566 480 626

```
rerrrrecrerercrerectrrecerresectacarecerrretrecreareary 1020
 807 AGCATCCGCTCTCATCAGGTGGCTGGGACACAAGAGCCATGCCTGGCCACTTCCAGGAG 866
 327 AACCICACCIGGCIGAICIACICIACIGCACGCICCIGCAGCCIIICICCGIGGACACA 386
 747 Arccaccagcaagigaagcgracgcrccagcaccaccaaracgagccarcaggcc 806
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 GCTGCCACCCACACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 987 AAGGCAGCTCAACAGATCGCAGAGAAGCCTTCCAGAAGTGCATCGCAAGCCCCCGGGAA
 1107 IGCTTCGCAGTGTTCCTCTGCTTCGCCCTCAGCTACATCCCCTTCCTGTTGCTCACATT
 567 cresisescaecreserransesescaecraecraececececerengaargringre
 601 ATCCACCACCAGGTCAAACGAGCAGCACAACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 841 AAGAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAAGCATCTGCCAAAAGCCCAGCCA
 121 ACCCIACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 ACTICIGATEGECTITGECCATTCGTCCCAAGCTCCGAACCCGCTTCAACCTGCTCATTGCC
 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 361 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCTTTGCTTCCCCCTCTGGCCTATTTATATC
 541 ATCCTCATGGGCATCTACTTTGGGCTCAGCAGGTTGGCATCTTCTATTGCCTC
 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGCTGTGACAGGCACGGGAATGTGCTC
 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 TACCTCCACCTGCACTGGCGCACCGTGCCACCTTCTGCAGGGTATTTGGGCTCCTTT
 1 ATGIGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGGCTATCGT
 Gaps
 Length 1574;
 0
 Indels
 DB 10;
 Score 887.6; DB 10;
Pred. No. 1.8e-220;
0; Mismatches 189;
 74.5%;
Similarity 84.1%;
1; Conservative (
 Query Match
Best Local Simil
Matches 1001;
 661
 781
 106
 961
 721
 267
 241
 507
 421
 61
 207
 301
 481
 g
 q
 g
 ò
 셤
 à
 임
 ठे
 d
 ò
 Db
 8
 음
 셤
 g
 ò
 g
 ò
 g
 ò
 ò
 \stackrel{\circ}{\circ}
 DP
 ⋧
 g
 Ś
 엄
 à
 qq
 ò
 g
 ò
 ò
 NUL-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapba-rémail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
Tissue Procurement: Gilbert Smith, Ph.D.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
Center code: BCM-HGSC.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunarane, Ph.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, H.,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
 /translation="www.sdawpscyhesvlgyrypaviwgvavayrgtygnvltlla
laiprektrrhilanitallychtoligengypyrythemprgayperfighleft
sansystiticlialgrylliahpklppopsakgivlalvgswygyrspaplmnyvy
lvpvvctcspdrmrgrpytilmgiypvlglssygvpyclihrqvkraaraldoyglh
gasirsqydygdypgrpplboxyrappsbegissppyrapathedbserag
ggirkaaogiabrepelboxarappsbegissppyrappsbegissppyrapytebsserag
ggirkaaogiabrepelboxarappsbegissppyrappsppyrapypspipyr
flllnildargraprvyhwyaanitwinscinpvlyaamnrgfrhaygsilkrgopgsf
 /db.xref="CDD:pfam00001"
1032 .1256
/hote="7tm_1; Region: 7 transmembrane receptor (rhodopsin
family)"
/db_xref="CDD:pfam00001"
 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 40 Row: o Column: 3
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 13507671.
 /note="7tm_1; Region: 7 transmembrane receptor (rhodopsinfamily)"
 /db xxef="texcon:10090"
/clone="MGC:30824 IMAGE:3995193"
/tissue type="Mammary tumor metastatized to lung. Tumor arose sponteneously from a senescent normal mammary (clonal) outgrowth infected with the virus MMTV."
/dlone lib="NCI CGAP_Lu19"
/lab host="NH10B"
/note="Vector: pCMV-SPORT6"
 Strausberg, R.
Direct Submission
Submitted (05-FEB-2002) National Institutes of Health, Mammalian
Gunditted (05-FEB-2002) Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
2238<u>8</u>257
 147. .1337

Codon start=1

produci=G protein-coupled receptor 84"

protein id="AAH3249.1"

(db_xref="G1:23273890"

(db_xref="LocusID:80910"
 /organism="Mus musculus"
/mol type="mRNA"
/strain="CZECH II"
 /note="synonym: EX33"
/db_xref="LocusID:80910"
/db_xref="MGI:1934129"
 'gene="Gpr84"
 (bases 1 to 1574)
 . .1574
 12477932
 misc_feature
 misc_feature
 REFERENCE
AUTHORS
TITLE
JOURNAL
 JOURNAL
MEDLINE
PUBMED
 gene
 CDS
 REMARK
 FEATURES
 COMMENT
```

540

989 600 746 960

720

780

1046

960

840 986 ORIGIN

g à

ò

```
203663: gap of unknown length 204541: contig of 878 bp in length 204561: gap of unknown length 204816: contig of 255 bp in length 204836: gap of unknown length 204939: contig of 73 bp in length 206958: contig of 2029 bp in length 206958: gap of unknown length 206958: gap of unknown length 207177: contig of 199 bp in length 207197: gap of unknown length 207197: gap of unknown length 207197: contig of 224 bp in length.
 g of 10828 bp in length
f unknown length
g of 11589 bp in length
f unknown length
 of 12772 bp in length
unknown length
of 8513 bp in length
 g of 4327 bp in length
f unknown length
g of 2207 bp in length
f unknown length
g of 1048 bp in length
f unknown length
 unknown length
of 7301 bp in length
 unknown length
of 5450 bp in length
unknown length
 unknown length
of 8067 bp in length
 unknown length
of 5183 bp in length
 of 5886 bp in length
 ength
 length
 89030. .108492

.note="assembly_name:Contig84"

108513. .120232

/note="assembly_name:Contig83"

120253. .131080

.note="assembly_name:Contig82"

131101. .142689

/note="assembly_name:Contig81"

142710. .155481
 /clone="RP23-169K7"
/sex="male"
1 .38304
/note="assembly_name:Contig87"
38325 .68273
/note="assembly_name:Contig86"
 55502. 164014
note="assembly_name:Contig80"
note="assembly_name:Contig79"
64035. 171335
note="assembly_name:Contig78"
 8294. .89009 __
note="assembly_name:Contig85"
 note="assembly_name:Contig76"
85349. 190531
 note="assembly_name:Contig77"
79443. .185328
 note="assembly_name:Contig75"
 1. .207421 ...
 /mol_type="genomic DNA"
/strain="C57BL6/J"
 'db_xref="taxon:10090"
'chromosome="15"
 gap of conting
 contig
gap of
contig
 ocation/Qualifiers
 contig
 contig
 gap of
 lone_end:SP6
ector_side:right"
71356. .179422
 55481:
 131101
142690
142710
155482
155502
 204910
204930
 64015
 96022
 204562
204817
 206959
206979
 64035
 90532
 04542
 204837
 misc_feature
 misc_feature
 misc_feature
 misc feature
 misc_feature
 misc_feature
 misc_feature
 misc_feature
 misc_feature
 misc_feature
 misc_feature
 misc_feature
 misc_feature
 source
 FEATURES
 ACO21643 207421 bp DNA linear HTG 15-MAY-2002 Mus musculus chromosome 15 clone RP23-169K7 strain C57BL6/J, WORKING DRAFT SEQUENCE, 23 unordered pieces.
 1081 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140
 1227 CTCAACAGCTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAGTTTCGCCACGCG 1286
 Chases I to 207421)

Grills,G., Han,J., Montgomery,K.T., Lee,E., Long,J., Pomerantz,R., Ioshikhes,I.P., Shim,C., Decker,J., Thomas,E., Perera,A., Gordon,M. and Kucherlapati,R.

Direct Submission

Submitted (19-JAN-2000) Department of Molecular Genetics, Albert Einstein College of Medicine Genome Center, 1300 Morris Park Ave., Bronx, NY 10461, USA

On Aug 9, 2001 this sequence version replaced gi:14717145.
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus. 1 (Dases 1 to 207421) Grills,G., Han,J., Montgomery,K.T., Lee,E., Long,J., Pomerantz,R., and Kucherlapari,R., Shim,C., Decker,J., Thomas,E., Perera,A., Gordon,M. High, Throughput Mouse Sequencing
 Center project name: AAT 20152
Sequencially vector: pUC18, 108752
Chemistry: Dye-terminator Big Dye, 1008
*Consensus quality: 193187 at least Q20
*Consensus quality: 190826 at least Q30
*Consensus quality: 186718 at least Q40
Bstimated insert size: 20691 - sum-of-contigs
Quality coverage: agarose-FP - N/A
Quality coverage: 6.5 x in Q20 bases; sum-of-contigs estimation
NOTE: This is a 'working draft' sequence. It currently consists of 23 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
 1141 TATGGCTCCATTTTAAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTA 1190
 contig of 18304 bp in length
gap of unknown length
contig of 2994 bp in length
contig of 20716 bp in length
gap of unknown length
gap of unknown length
contig of 19463 bp in length
gap of unknown length
contig of 11720 bp in length
 Web site: http://www.hpcgg.org/Sequence/mouse.html
Contact: hpgc@mendel.mgh.harvard.edu
-----Summary Statistics
 Center: Harvard Partners Genome Center
 ----Genome Center
 AC021643
AC021643.12 GI:15143422
HTG; HTGS PHASE1; HTGS DRAFT.
Mus musculus (house mouse)
 38324:
68273:
68293:
 89009:
89029:
108492:
108512:
 38304:
 Center Code:
 38305
38325
68274
 89010
89030
108493
108513
 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
 LOCUS
 REFERENCE
AUTHORS
 JOURNAL
REFERENCE
AUTHORS
 TITLE
JOURNAL
 RESULT 11
 AC021643
 TITLE
 COMMENT
```

| 126812 CTGGACAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | OY 1021 CTGGACGCCGGGGCCCCGGGGTGGCCCAATGCTGCCCCCAACCTACCT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12 48 AF272948 TION Mus musculus Complete cds. ION AF272948 N AF272948.1 G                                                                                                                                                                                                                                                                                                                                                      |                                                                      | REFERENCE 2 (bases 1 to 1611)  AUTHORS Wittenberger, T. and Hellebrand, S.  TITLE Direct Submission JOURNAL Submitted (29-MAY-2000) ZMMH, Institut fuer Entwicklungsneurobiologie, Martinistr. 52, Hamburg 20246, Germany FEATURES 1. 1611 Source //organism="marka" masculus" /moi ryne="marka" | / strain="CS78L"<br>/ db xref="taxon:10090"<br>11611<br> 1611<br> 1611<br> 1612<br> 138 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| misc_feature / 190552 .196001 misc_feature / 100te="assembly_name:Contig74" misc_feature / 1004e="assembly_name:Contig73" misc_feature / 100369 . 202575 misc_feature / 1004e="assembly_name:Contig72" misc_feature / 1004e="assembly_name:Contig70" misc_feature / 1004e="assembly_name:Contig69" misc_feature / 1004e="assembly_name:Contig69" misc_feature / 1004e="assembly_name:Contig69" misc_feature / 1004e="assembly_name:Contig69" misc_feature / 1004e="assembly_name:Contig68" misc_feature / 1004e="assembly_name:Contig66" misc_feature / 1004e="assembly_name:Contig66" | Query Match         74.5%;         Score 887.6;         DB 2;         Length 207421;           Best Local Similarity         84.1%;         Pred. No. 1.6e-220;         0;         Gaps         0;           Matches 1001;         Conservative         0;         Mismatches 189;         Indels         0;         Gaps         0;           Qy         1 ArgrGgaAcaGGTCAGATGCCAACTTCTCTGGTACCATGAGTCTGTGTGGGCTATGA         126151         126151         126151         126151         126151         126151         126151         126152         126152         126151         126152         126152         126152         126152         126152         126152         126152         126151         126152         126152         126152         126152         126152         126152         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         126153         1 | 121 ACCCTACTGGCCATCCAGGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC  126212 ACTCTGGCTGGCCATTCGTCCCAAGCTCCGAACCGGCTTCAACCTGCTCATTGCC  181 AACCTCACTGGCTGATCTCCTCTACTGCAGCTCCTTCAGCCTTCTGTGGACACC  126272 AACCTCACCTGGCTGATCTTCTTACTGCAGCTCCTTCTGTGGACACC  126272 AACCTCACCCTGGCTGATCTTACTGCAGCTCCTTCTGTGGACACC  126272 AACCTCACCCTGGCTGATCTTACTGCAGCTCCTTGTGGACACACCTTCTTCTGTGGACACACTTCTTCTGTGGACACACTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT | Qy   241 TACCTCCACTGACTGGGCCACCGGTGCCACCTTCTGCAGGGTATTGGCCTCCCTT 300 | Qy         421         CTGGTGAGCACCTGGGTTGTGGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC         480           Db         126512         CTGGTGGCAGCTGGGTTGTGGGGGTGACCAGCTTTGCCCCCTCTGGAATGTTTTTGTC         126571           Qy         481         CTGGTAGTTGTGACTTGCACCTTTGACCGCATCCGAGGCCGGCC           | 00   00   00   00   00   00   00   0                                                    |

| Oy 901 ATTAAAGGAGCCAGAA  Db 1038 ACTGCAGGAGCTCGCA  Oy 961 TGTTTGCTGTTTC  Db 1098 TGCTTCGCAGTGTTC  OY 1021 CTGGATGCCAGAGTCT  OY 1021 CTGGATGCCAGAGTCT  O 1021 CTGGATGCCAGAGTCC  O 1021 CTGGATGCCAGAGTCC  O 1021 CTGGATGCCAGAGTCC | 1138<br>1081<br>1218<br>1141 |                                                                              | RESULT 13 AC126846 LOCUS AC126846 AC126846                        | ACCESSION AC126846 VERSION AC126846.2 GI:227 VERSION AC126846.2 GI:227 KEYWORDS HTG; HTGS PHASE2; | MSIN                                                                                                                                      | REFERENCE ACTULES. AUTHORS Muzny, D.Marie., Me AUTHORS Allen, C., Allen, H. | Baldwin,D., Bandar,<br>Biswalo,K., Blair,<br>Biswalo,K., Blair,<br>Byswal, W., Buhay,C | Chacko, J., Carc<br>Chacko, J., Chavez,<br>Cleveland, C., Cock<br>Davila, M.L., Davis                              | Draper, H., Dugan-R. Bgan, A., Escotto, M. Fernandez, S., Finl Franco, M. Cabio | Gebregeorgis, E., G<br>Gunaratne, P., Haal<br>Harvey, Y., Havlak,                                                                                         | Hollins, B., Howell<br>Jackson, L., Jacob,<br>Karpathy, S., Kelly | Liu, Y., Krair, V., Liu, Y., Liu, W., Lo Lorensuhewa, L., Lo Maheshwari, M., Mah | Manjulin, b., Maghark<br>Manhiney, S., McLeo<br>Milosavljevic, A.,<br>Morgan, M., Morris,<br>Mankovrić, C. Neal | Nwackelemeb.O., Ok<br>Nwackelemeb.O., Ok<br>Pasternak,S., Paul<br>Plopper,F., Poinde | Reilly, B., Reilly,<br>Rives, C., Rodkey, T<br>Sanders, W., Savery                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| TRENI<br>TRENI<br>SEDEN<br>VAGTO<br>VAGTO<br>VAGTO<br>VAGTO                                                                                                                                                                     |                              | Oy 61 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGGGGGCGCGGGGCACCGTGGGCACCGTGGGCTT 120 | OY 121 ACCCTACTGGCCTTGGCCATCCAGCCCGAGCTCCGATTCAACCTGCTCATAGCC 180 | OY 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 240                             | OY 241 TACCTCCACCTGCACTGCCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 300  178 TACCTCCACCTCCATTGGCGTACCGGCGCGGTTCTGTAGAATATTTGGACTCCTCCTC 437 | Qy 301 TTTGCCTCCAATTCTGTCTCCATCCTGACCTCGTCGTCGCACGGACGG                     | OY 361 CTCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 420                 | QY         421         CTGGTGAGCACCTGGGTTGTGGGCGTGGCCTGGCCTTTGCTCCCCTCTGGCCTATTTATATC         480           LILIII | QY         481 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCTTCCGAGGCCGGCC               | QY         541 ATCCTCATGGGCATCTACTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC         600           bb         678 ATCCTCATGGGCATCTTGTGCTTGGGCTCAGCAGGGGGGGG | OY 601 ATCCACCCCCAGGTCAAACGAGCAGCACTGGACCAATACAAGTTGCGACAGGG 660  | Qy 661 AGCATCCAACCATGTGGCCAGGACTGATGAGGCCATGCTGGTGTTTCCAGGAG 720                 | OY 721 CTGGACAGCAGGTTAGCATCAGGAGGACCAGTGAGGGGATTTCATCTGAGCCAGTCAGT                                              | OY 781 GCTGCCACCCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC 840                  | OY 841 AAGAGACTAAGCAGAAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 900 DD 978 AAGGCAGCTCAACAGATGGCAGAAGCCTTCCAGAAGTGCATCGCAAGCCCGGGGAA 1037 |

"Metzker, M.Lee., Abramzon,S., Adams,C., Alder,J.,
"Metzker,M.Lee., Abramzon,S., Anguiano,D.,
"A Ayagi,A., Ayodeji,M., Baca,E., Baden,H.,
"Anyagi,A., Ayodeji,M., Barnstead,M., Benahmed,F.,
lair,J., Blankenburg,K., Blyth,P., Brown,M.,
hay,C., Burch,P., Burrell,K., Calderon,E.,
Carter,K., Cavazos,I., Ceasar,H., Center,A.,
avez,D., Chen,G., Chen,R., Chen,Y., Chen,Z., Chu,J.,
Cox,C., Coyle,M., Cree,A., Disouza,L.,
Davis,C., Davy-Carroll,L., De Anda,C., Dederich,D.,
enson,S., Deramo,C., TongyY., Dinh,H., Divya,K.,
tto,M., Begene,C., Evans,C.A., Falls,T., Fan,G.,
Finley,M., Flagg,N., Forbes,L., Foster,P.,
Ger,K., Gall,R., Gardy,W., Guerra,W., Guevara,W.,
E., Geer,K., Gall,R., Gardy,M., Guerra,W., Gavevara,W.,
E., Geer,K., Gall,R., Henderson,N., Hernandez,J.,
Hanes,A., Hawes,A., Henderson,N., Hernandez,J.,
Itak,P., Hawes,A., Hume,J., Idlebird,D., Jackson,A.,
walk,P., Mannil,C., Hamilton,C., Hamilton,K.,
Idang,H., Lobow,H., Levan,J., Lewis,L., Li,Z., Liu,J.,
Luly,S., Kelly,S., Khan,Z., Khing,L., Kovar,C.,
Luly,S., London,P., Longace,S., Lopez,J.,
Mahindartne,M., Martin,R., Martin, hadagcacadangcccdncadagncaddadgradccdnang 1097 1020 CTCTGCTTCGCCCTCAGCTACATCCCTTTCTTGTTGCTCAACATT 1157 AACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140 244845 bp DNA linear HTG 03-OCT-2002 clone CH230-11M7, \*\*\* SEQUENCING IN PROGRESS \*\*\*. CAGGCTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG 1080 AGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 960 aa, Chordata, Craniata, Vertebrata, Euteleostomi, a, Rodentia, Sciurognathi, Muridae, Murinae; CTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT AAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTA 1190 SAAACGCGGGCCACAGAGTTTCCGCCGGTTCCATTA 1327 HTGS\_DRAFT; HTGS\_ENRICHED. (Norway rat) 4845)

120

54855

240

54915

54975

300

```
54676 AIGIGEAACAGCICAGAIGACAACIICICICICCIACCAIGAGICIGIAITIGGGCIAICGA 54735
 TTTACTTCCAATTCTGTCTCCATTCTTACCCTCTGTCTCATTGCTCTAGGACGCTACCTT 55035
 55576 gctgcaddadacacacadadadcaacaatacaacatcaaaattcaaaaaataataacaatata 55635
 961 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1020
 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT
 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTCATTGCCCACCCTAAGCTCTTTCCCCAGGTTTTTCAGTGCCAAGGGGATCGTGCTGCCA
 CTAGTGGGCAGCTGGGTTGTGGGGGGGAACCTTGCCCCCCTCTGGAATGTTATGTC
 5156 TIGGIGCCAGITGTCTGCACCTGCAGCTTTGACCGCGTGCGAGGCCGGCCTTACACCACC
 55216 Arcercarededarcircirreregeriedecreadededegedegecererefectic
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 5276 ATCCACCCCCAAGTGAAGCCTGCGGCTCGAGCGCTGGACAATATGGGCTGCAGGAGGCC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 <u> AAGAGGTTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGGCA</u>
 1 AIGIGGAACAGCICTGACGCCAACTICICCTGCTACCAIGAGICIGIGCIGGGCTAICGI
 TATGTTGCAGTTAGCTGGGGGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 s4736 hacrinecagnianchesescaneshasississascascascascascascanes
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTTC
 cracacadecegecrnecarcaacaceceaceaacecaaceaarrrearcreacecagreacr
 GCTGCCACCCACACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 sssis aaggcagcicagcagarcrcagagagagagccrrccagaagrgcarcgcaagacrggagga
 901 ATTAAAGGAGCCACAAAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 Length 244845;
 Indels
 Score 867.8; DB 2;
Pred. No. 2.4e-215;
0; Mismatches 202;
 243120. .244845
/note="wgs_contig"
 72.9%;
 Matches 989; Conservative
 Similarity
 misc feature
 61
 121
 241
 301
 481
 541
 661
 721
 781
 841
 361
 421
 54976
 55036
 55096
 601
 55336
 55396
 Query Match
Best Local
 ò
 g
 ò
 g
 à
 g
 ò
 g
 ò
 d
 ò
 d
 à
 g
 ò
 d
 \dot{\delta}
 q
 ö
 g
 δ
 qq
 ò
 qq
 ò
 셤
 \delta
 엄
 ò
 엄
 Submitted (10-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

3 (Dases 1 to 244845)

Rat Genome Sequencing Consortium.

Direct Submission

5 (Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Sep 10, 2002 this sequence version replaced gi:21722958.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequening reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). As a result, the sequence may extend beyond the ends of the clone and there may be contigs that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.
 Center code: BCM
Web site. http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Conter clone name: GDTA
Center clone name: GDTA
Center clone name: GDTA
Center clone name: GDTA
Center clone name: CDTA
Center clone name: GDTA
Contact program: Phrap; version 0.990329
Assembly program: Phrap; version 0.990329
Consensus quality: 225716 bases at least Q30
Consensus quality: 22647 bases at least Q30
Consensus quality: 22647 bases at least Q30
Consensus quality: 22647 bases at least Q30
Consensus quality: 2264741; sum-of-contigs estimation
Quality coverage: 4x in Q20 bases; sum-of-contigs estimation
 NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a "working draft' sequence. It currently consists of 1 contigs. Gaps between the contigs are represented as runs of N. The order of the pieces of the gaps between them are based on estimates that have provided by the submittor.

This sequence will be replaced by the finished sequence as soon as it is available and the accession number will be preserved.

1 244845: contig of 244845 bp in length.
Shetty, J., Shvartsbeyn, A., Sisson, I., Sitter, C.D., Smajs, D., Sned, A., Sodergren, E., Song, X.-Z., Sorelle, R., Sosa, J., Taylor, C., Steimle, M., Strong, R., Sutton, A., Svatek, A., Tabor, P., Taylor, C., Taylor, T., Thomas, S., Tingey, A., Tarejos, Z., Usmani, K., Valas, R., Vera, V., Villasana, D., Waldron, L., Walker, B., Wang, C., Wang, S., Warren, J., Warren, R., Wei, X., White, F., Williams, G., Willson, R., Widczyk, R., Wooden, H., Worley, K., Wight, D., Wright, R., Wu, J., Yakub, S., Yen, J., Yoon, L., Yoon, Y., Yu, F., Zhang, J., Zhou, M., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weiss, R., Smith, D.R., Holt, R.A., Smith, H.O., Direct, Submission
 Center: Baylor College of Medicine
Center code: BCM
 1. .244845
| forganism="Rattus norvegicus"
| /mol_type="denomic DNA"
| /db /zref="taxon:10116"
| /clone="CH230-11M7"
 Location/Qualifiers
 /note="wgs_contig"
1329. .2694
/note="wgs_contig"
239866. .241111
 /note="wgs_contig"
 (bases 1 to 244845)
ley, K.C.
 Direct Submission
 Unpublished
 forley, K
 misc_feature
 misc_feature
 REFERENCE
AUTHORS
TITLE
JOURNAL
 REFERENCE
AUTHORS
TITLE
JOURNAL
 FEATURES
 COMMENT
```

55155

480

420

55215

540

55275

9

55395

720

55455

780

| 865: contig<br>1845: gap of<br>1949: gap of<br>1949: gap of<br>2856: contig<br>3860: contig<br>3860: contig<br>4924: gap of<br>4924: gap of<br>6793: contig<br>6793: gap of<br>6793: gap of | 7890: gap of 100 bp 8752: contig of 862 bp in 1 8852: contig of 874 bp in 1 9726: contig of 874 bp in 1 10827: gap of 100 bp in 1 10827: gap of 100 bp in 1 1120: contig of 893 bp in 1 12687: contig of 893 bp in 1 12787: gap of 100 bp in 1 13748: gap of 100 bp in 1 13748: gap of 100 bp in 1 15608: contig of 869 bp in 1 15608: contig of 891 bp in 1 15688: contig of 891 bp in 1 15688: contig of 891 bp in 1 15688: contig of 895 bp in 1 15688: contig of 895 bp in 1 15688: contig of 895 bp in 1 15688: contig of 895 bp in 1 15688: contig of 895 bp in 1 15689: contig of 895 bp in 1 15689: contig of 895 bp in 1 18540: contig of 895 bp in 1 18540: contig of 895 bp in 1 18540: contig of 895 bp in 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8640: gap of 100 bp 9539: contig of 899 bp in 1 0537: contig of 899 bp in 1 0543: gap of 100 bp 10543: gap of 100 bp 10544: gap of 100 bp in 1 10544: gap of 100 bp in 1 10545: gap of 100 bp in 1 10545: gap of 100 bp in 1 10558: gap of 100 bp in 1 1 10558: gap of 100 bp in 1 1 10558: gap of 100 bp in 1 1 10559: gap of 100 bp in 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                                                                                                                                                                                                                                                                                                                                                                                                                            | 29470: gap of 100 bp 30364: contig of 894 bp in 1 30464: gap of 100 bp 31465: gap of 100 bp 32337: contig of 807 bp in 1 32437: gap of 100 bp in 1 33404: contig of 867 bp in 1 34283: contig of 879 bp in 1 34383: gap of 100 bp 53567: contig of 879 bp in 1 35367: contig of 884 bp in 1 35367: contig of 880 bp in 1 35367: contig of 880 bp in 1 35367: contig of 880 bp in 1                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                             | RESULT 14 ACO16463 LOCUS DEFINITION Homo sapiens clone RP11-1009, LOW-PASS SEQUENCE SAMPLING. ACO16463. AC | Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McGurk, A., McKernan, K., McLaughlin, J., Maldrin, J., Morrow, J., Naylor, J., Norman, C.H., O'Connor, T., O'Donnell, P., Peterson, K., Pollara, V., Killey, R., Roy, A., Santos, R., Severy, P., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talama, J., Wwan, D., Yew, W.J., Zimmer, A. and Zody, M.  TITLE Direct Submission  Negerach, 320 Charles Street, Cambridge, MA, 02141, USA  On Mar 3, 2000 this sequence version replaced gi:6910791.  All repeats were identified using RepeatMasker:  Smit, A.F. A. & Green, P. (1996-1997)  http://ftp.genome.washington.edu/RM/RepeatMasker.html | Center project name: 13130  Center clone name: 10_0_9  * NOTE: This record contains 152 individual  * sequencing reads that have not been assembled into  * contigs. Runs of N are used to separate the reads  * and the order in which they appear is completely  * arbitrary. Low-pass sequence sampling is useful for  * identifying clones that may be gene-rich and allows  * overlap relationships among clones to be deduced.  * However, it should not be assumed that this clone  * will be sequenced to completion. In the event that  * the record is updated, the accession number will  * be preserved. |

| in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in length in len                                                                     | 1985   1986   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985   1985      | र कर करें⊣  | 36348          | 37211:           | gap or<br>contig<br>gap of | 100 bp           | ďą.            |          |   | Que:<br>Best<br>Matc | ry Matc<br>t Local<br>ches 7 | Query Match<br>Best Local Similarity<br>Matches 724; Conser |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|------------------|----------------------------|------------------|----------------|----------|---|----------------------|------------------------------|-------------------------------------------------------------|
| 93.677 contrig of 691 bp in length 93.677 contrig of 692 bp in length 421000 contrig of 693 bp in length 421000 contrig of 693 bp in length 421000 contrig of 693 bp in length 421000 contrig of 693 bp in length 421000 contrig of 693 bp in length 421000 contrig of 693 bp in length 42100 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in length 42101 contrig of 693 bp in lengt                                                                     | 93657 generig of 691 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go 687 bp in length 412096 general go | * *         | 37312<br>38165 | 38164:<br>38264: | contig<br>gap of           | of 853<br>100 bp | ď              | n length |   |                      | 4.                           | 7 GCTCCCCTC                                                 |
| 401241   401141   40124   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   401244   40                                                                       | 40124; Guildig of 6 57 by in length 40124; Guildig of 6 57 by in length 401200; Guildig of 6 58 by in length 401200; Guildig of 6 58 by in length 401200; Guildig of 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 58 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by in length 401200; Guildig of 6 6 59 by i | * *         | 38265<br>39168 | 39167:           | contig                     | of 903           | фþ             |          |   | 7 2                  | 9767                         |                                                             |
| 1200   10   10   10   10   10   10   1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1000   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   | * *         | 39268          | 40124:           | contig                     | of 857           | đq             | -        |   | 2                    | 0                            | פרורניניו                                                   |
| 413209; aged 6 100 bp 413209; aged 6 100 bp 413218; aged 6 100 bp 413229; aged 6 100 bp 413220; aged 6 100 bp 413229; aged 6 100 bp                                                                      | 41200: 300 of 100 bp 41201 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 of 20 0 bp 41202 300 | <b>.</b> ★  | 40125          | 41100:           | gap or contig              | 100 bp<br>of 876 | đq             |          |   | ò                    | 51                           |                                                             |
| 43035; contig of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44157; app of 100 bp 44158;                                                                     | 43095; control of 100 bp 441095; app of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441095; control of 100 bp 441096; control of 100  | * *         | 41101<br>41201 | 41200:           | gap of                     | 100 bp<br>of 896 | ρρ             |          |   | d<br>d               | 6384                         |                                                             |
| 445157   Santo (100 bb)   100 to 100 b                                                                       | 440579 gate of 100 bb by in length 45059 gate of 100 bb by in length 45050 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 gate of 100 bb by in length 45051 | * *         | 42097          | 42196:           | gap of                     | 100 bp           | 4 1            |          |   | ۵۲                   | 57                           | <b>4</b> -                                                  |
| 41877 30 contrig of 862 bp in length 41878 30 contrig of 862 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41871 30 contrig of 863 bp in length 41872 30 contrig of 863 bp in length 41872 30 contrig of 863 bp in length 41872 30 contrig of 863 bp in length 41873 30 contrig of 863 bp in length 41873 30 contrig of 863 bp in length 41873 30 contrig of 863 bp in length 41873 30 contrig of 863 bp in length 41874 30 contrig of 863 bp in length 41875 30 contrig of 863 bp in length 41875 30 contrig of 863 bp in length 41876 30 contrig of 863 bp in length 41876 30 contrig of 863 bp in length 41876 30 contrig of 863 bp in length 41877 30 contrig of 863 bp in length 41877 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 41878 30 contrig of 863 bp in length 4188 30 contrig of 863 bp in lengt                                                                     | 441777 3 contrig of 862 bp in length 44177  * *         | 43096          |                  | gap of                     | 100 bp           | <u>a</u> ,     |          |   | qu                   | 6390                         |                                                             |
| 45106 300 00 00 00 00 00 00 00 00 00 00 00 00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 45106 gape of cried by in length 45106 gape of cried by in length 45106 gape of cried by in length 45107: contig of 835 bp in length 46099; gape of 100 bp 46099; contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835 bp in length 46097: contig of 835  | * *         | 43196          |                  | contig                     | of 862           | ф              |          |   | č                    | ;                            | ני אווי איני איני                                           |
| ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100 bp ## 100                                                                     | ## 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by 100 by | *           | 44158          |                  | contig                     | of 869           | đq             |          |   | Š                    | 0                            |                                                             |
| 467974 COUNTED SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF SERVICE CONTRICTORY AND ADDRESS OF S                                                                     | 46094   6000   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   600   6   | * *         | 45027          |                  | gap of                     | 100 bp<br>of 873 | q              | Н        |   | qq                   | 6396                         | 10                                                          |
| 470741 (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2010) (2                                                                     | ## 1972   10.0 kg   10.0 k | * *         | 46000          |                  | gap of                     | 100 bp           | ۇ ،<br>كى      |          |   | ζ                    | 69                           | g-                                                          |
| 497273 contrig of 898 bp in length 490721 gap of 100 bp 490721 contrig of 899 bp in length 490721 gap of 100 bp 490721 gap of 100 bp 490721 gap of 100 bp 59010 contrig of 897 bp in length 590101 gap of 100 bp 510101 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap of 100 gap gap of 100 gap gap of 100 gap gap of 100 gap gap of 100 gap gap of 100 gap gap of 100 gap gap of 100 gap gap gap gap gap gap gap gap gap gap                                                                                                                                                                                                                                                                                                                                                                                                  | 49072: gap of 100 bg 49072: gap of 100 bg 49072: gap of 100 bg 49072: gap of 100 bg 49072: gap of 100 bg 49072: gap of 100 bg 49072: gap of 100 bg 49072: gap of 100 bg 50910: gap of 100 bg 51972: gap of 100 bg 51981: gap of 100 bg 51982: ga | *           | 46975          |                  | gap of                     | 100 bp           | C <sub>4</sub> |          |   | q <sub>Q</sub>       | 6402                         | S GCCATGC                                                   |
| 498611 contrig of 2 889 bp in length 498611 contrig of 2 889 bp in length 498611 contrig of 2 889 bp in length 498611 contrig of 2 899 bp in length 509101 contrig of 8 82 bp in length 5288511 contrig of 8 82 bp in length 528851 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 528852 contrig of 8 93 bp in length 64773 contrig of 8 93 bp in length 64773 contrig of 8 93 bp in length 64785 contrig of 8 93 bp in length 64785 contrig of 8 93 bp in length 64785 contrig of 8 93 bp in length 64785 contrig of 8 93 bp in length 64785 contrig of 8 93 bp in length 64785 contrig of 8 93 bp in length 647851 contrig of 8 93 bp in length 647851 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in length 647852 contrig of 8 93 bp in leng                                                                     | 4.0921; cont.g of 2.092 by in length 4.0921; cont.g of 2.092 by in length 4.0921; cont.g of 2.092 by in length 5.0913; cont.g of 2.092 by in length 6.0014; con | * *         | 47075          |                  | contig                     | of 898           | đq             |          |   | ě                    |                              |                                                             |
| 49913; contrig of 852 bp in length 50013; app of 100 bp 51872; contrig of 862 bp in length 51873; contrig of 862 bp in length 52881; contrig of 863 bp in length 52881; contrig of 863 bp in length 52881; contrig of 863 bp in length 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; gap of 100 bp 52882; ga                                                                     | 49913: contig of 82 bp in length 50013: gap of 100 bp 51872: contig of 82 bp in length 52881: contig of 83 bp in length 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 52882: gap of 100 bp 64438: 52882: contig of 83 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 52882: contig of 88 bp 64438: 65531: contig of 88 bp 64438: 65531: contig of 88 bp 64438: 65532: contig of 88 bp 64438: 65533: contig of 88 bp 64438: 65533: contig of 88 bp 64438: 65534: contig of 88 bp 64438: 65535: contig of 88 bp 64438: 65536: cont | *           | 48073          |                  | gap or<br>contig           | of 889           | ďq             |          |   | Š                    | 7.5                          | ტ —                                                         |
| Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   Second   S                                                                       | Second continued of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of   | * *         | 48962          |                  | gap of                     | 100 bp           | £              |          |   | අුධ                  | 408                          | დ                                                           |
| 510101 gap of 100 by in length 510110 gap of 100 by 510120 gap of 100 by                                                                     | 510101 gate of 100 by in length 51011 gate of 110 gate of 100 by in length 51011 gate of 100 by in length 51012 gate of 100 by in length 51011 gate of 100 by in length 51011 gate of 100 by in length 51011 gate of 100 by in length 51011 gate of 100 by in length 51011 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 51012 gate of 100 by in length 61012 gate of 100  | *           | 49914          |                  | gap of                     | 100 bp           | d,             |          |   | ò                    | 81                           |                                                             |
| 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 5.2872; contrig of 68 bp in length 6.673; contrig of 68 bp in length 6.674; contrig of 68 bp in length 6.674; contrig of 68 bp in length 6.675; contrig of 68 bp in length 6.675; contrig of 68 bp in                                                                     | 5.872 contig of 66 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 5.887. contig of 68 bp in length 6.075. contig of 68 bp in length                                                                                                                                                                                                                                                                           | * *         | 50014          |                  | contig                     | of 897           | фĎ             |          |   | 7 7                  |                              |                                                             |
| 25951: capting of 879 bp in length 55951: capting of 879 bp in length 55951: capting of 879 bp in length 55951: capting of 889 bp in length 55951: capting of 889 bp in length 55952: capting of 889 bp in length 55767: capting of 889 bp in length 55767: capting of 889 bp in length 57727: capting of 889 bp in length 57827: capting of 889 bp in length 6793: capting of 889 bp in length 6765: capting of 889 bp in length 6773: capting of 889 bp in length 6775: capting of 889 bp in length 6776: capting of 889 bp in length 6777: capting of 889 bp in length 6777: capting of 889 bp in length 6778: capting of 889 bp                                                                      | 25951: contig of 879 bp in length 25951: gap of 100 bp 25951: gap of 100 bp 25951: gap of 100 bp 25951: gap of 100 bp 25951: gap of 100 bp 25951: gap of 100 bp 25951: gap of 100 bp 25952: contig of 895 bp in length 25953: contig of 895 bp in length 25953: contig of 895 bp in length 25953: gap of 100 bp 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: gap of 100 bp 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: gap of 100 bp 25952: contig of 895 bp in length 25952: gap of 100 bp 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig of 895 bp in length 25952: contig | *           | 51011          |                  | gap or<br>contiq           | 100 pp<br>of 862 | aq             |          |   | <b>q</b> 0           | 414                          | LO.                                                         |
| 52531; gap of 10 by 10 lingth 52531; gap of 10 by 10 lingth 52531; gap of 10 by 10 lingth 52531; gap of 10 by 10 lingth 52531; gap of 100 by 10 lingth 52531; gap of 100 by 10 lingth 52535; contig of 865 by in length 52535; contig of 865 by in length 52535; contig of 865 by in length 52535; contig of 875 by in length 52535; contig of 875 by in length 52537; contig of 875 by in length 67535; gap of 100 by 100 lingth 67535; gap of 100 by 1                                                                     | 5.2951; gap of 100 by in length 5.2951; gap of 100 by in length 5.3951; gap of 100 by in length 5.3951; gap of 100 by in length 5.3951; gap of 100 by in length 5.5754; contig of 89 by in length 5.5754; contig of 89 by in length 5.5754; contig of 89 by in length 5.5754; contig of 89 by in length 5.5757; contig of 89 by in length 5.5758; contig of 89 by in length 6.5754; contig of 89 by in length 6.5554; contig o | * *         | 51873          |                  | gap of                     | 100 bp           | . :            | _        |   | ò                    | 87                           |                                                             |
| 53931; Contig of 886 bp in length 53931; app of 100 bp 54900; contig of 869 bp in length 54900; contig of 869 bp in length 55795; contig of 895 bp in length 55725; contig of 895 bp in length 56854; app of 100 bp 57727; contig of 895 bp in length 58877; app of 100 bp 57727; contig of 895 bp in length 58877; contig of 895 bp in length 58877; contig of 895 bp in length 58877; contig of 895 bp in length 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794; app of 100 bp 60794                                                                     | 53931; Contig of 886 bp in length 53931; Contig of 869 bp in length 54901; capting of 869 bp in length 54901; capting of 869 bp in length 54905; capting of 869 bp in length 55795; capting of 879 bp in length 55787; capting of 879 bp in length 55787; capting of 879 bp in length 57787; capting of 879 bp in length 58787; capting of 879 bp in length 66794; capting of 879 bp in length 66794; capting of 879 bp in length 66794; capting of 880 bp in length 67773; capting of 880 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of 881 bp in length 67876; capting of  | *           | 52852          |                  | gan of                     | 100 bp           | d<br>d         | -        |   |                      | 6420                         | 10                                                          |
| 54800: contrig of 80 bp in length 54800: contrig of 80 bp in length 54800: contrig of 80 bp in length 5580: sometig of 80 bp in length 5685: gap of 100 bp 56554: contrig of 873 bp in length 56852: gap of 100 bp 56554: contrig of 873 bp in length 56852: contrig of 873 bp in length 58822: gap of 100 bp 58822: gap of 100 bp 67822: contrig of 873 bp in length 60794: gap of 100 bp 67822: contrig of 873 bp in length 60794: gap of 100 bp 67822: contrig of 873 bp in length 60794: gap of 100 bp 67822: contrig of 873 bp in length 60794: gap of 100 bp 67822: contrig of 883 bp in length 60794: gap of 100 bp 67822: contrig of 883 bp in length 6173: gap of 100 bp 67822: contrig of 883 bp in length 6173: gap of 100 bp 67822: contrig of 883 bp in length 6173: gap of 100 bp 67822: contrig of 883 bp in length 6173: gap of 100 bp 67822: contrig of 883 bp in length 6173: gap of 100 bp 67823: contrig of 883 bp in length 6173: gap of 100 bp 67823: contrig of 883 bp in length 6173: gap of 100 bp 67823: contrig of 883 bp in length 6173: gap of 100 bp 67823: gap of 10                                                                     | 5.3931; app of 100 bp 5.4900: contig of 869 bp in length 5.5490: contig of 869 bp in length 5.5490: contig of 869 bp in length 5.5574: contig of 869 bp in length 5.5674: gap of 100 bp 5.5727: contig of 873 bp in length 5.8877: gap of 100 bp 5.8877: contig of 809 bp in length 5.8877: contig of 809 bp in length 5.8972: contig of 809 bp in length 6.0794: gap of 100 bp 6.0794: gap of 100 bp 6.0794: gap of 100 bp 6.0794: gap of 100 bp 6.0794: gap of 100 bp 6.0794: gap of 100 bp 6.0756:  * 1         | 52952          |                  | contig                     | of 880           | ďq             | lengt    |   | 3                    | 2                            | ٥.                                                          |
| 55575: contig of 875 bp in length 55575: contig of 875 bp in length 55575: contig of 875 bp in length 55575: contig of 875 bp in length 55575: contig of 875 bp in length 557727: contig of 875 bp in length 57727: contig of 875 bp in length 57727: contig of 875 bp in length 57727: contig of 875 bp in length 60794: gap of 100 bp 58727: gap of 100 bp 58727: gap of 100 bp 60794: gap of 100 bp 60795: gap of 100 bp 60795: gap of 100 bp 60796: gap of 100 bp 60796: gap of 100 bp 60797: gap of 100 bp 60707: gap of 100                                                                     | 55575: contig of 875 bp in length 55575: contig of 873 bp in length 56554: gap of 100 bp 56554: contig of 873 bp in length 56554: contig of 873 bp in length 56554: contig of 873 bp in length 56554: gap of 100 bp 58727: contig of 873 bp in length 59722: contig of 872 bp in length 60794: contig of 872 bp in length 60794: gap of 100 bp 59722: gap of 100 bp 60794: contig of 872 bp in length 60794: gap of 100 bp 60794: contig of 872 bp in length 60794: gap of 100 bp 60794: gap of 100 bp 60794: gap of 100 bp 60773: gap of 100 bp 60794: gap of 100 bp 60704:  * *         | 53832          |                  | gap of                     | 100 bp           | Š              | _        |   | ò                    | 93                           |                                                             |
| 555755 contig of 895 bp in length 555955 contig of 895 bp in length 555955 contig of 895 bp in length 555757 contig of 895 bp in length 5727; contig of 895 bp in length 58877; gap of 100 bp 58877; gap of 100 bp 58877; contig of 895 bp in length 58877; contig of 895 bp in length 60594; contig of 895 bp in length 60594; gap of 100 bp 60594; contig of 883 bp in length 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 bp 61773; gap of 100 b                                                                     | 55755; contig of 695 bp in length 55895; contig of 685 bp in length 56895; contig of 685 bp in length 56827; contig of 685 bp in length 58827; contig of 695 bp in length 60794; contig of 695 bp in length 60794; contig of 697 bp in length 60794; contig of 697 bp in length 60794; contig of 697 bp in length 60794; contig of 697 bp in length 60795; contig of 697 bp in length 60795; contig of 697 bp in length 60796; contig of 697 bp in length 60796; contig of 697 bp in length 60797; contig of 697 bp in length 60707; contig of 697 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | *           | 54801          |                  | gap of                     | 100 bp           | 24             | 4        |   | qq                   | 6426                         | ıΩ                                                          |
| 56754: contig of 80 bp in length 56754: contig of 80 bp in length 56754: contig of 80 bp in length 58827: contig of 80 bp in length 66934: contig of 80 bp in length 6736: contig of 80 bp in length 6736: contig of 80 bp in length 6736: contig of 80 bp in length 6418: contig of 80 bp in length 6428: contig of 8                                                                     | 56754: contig of 89 bp in length 5727: contig of 87 bp in length 5727: contig of 87 bp in length 5727: contig of 87 bp in length 5727: contig of 87 bp in length 5722: contig of 89 bp in length 5722: contig of 89 bp in length 5722: contig of 89 bp in length 5722: contig of 89 bp in length 60594: contig of 87 bp in length 6173: contig of 88 bp in length 6173: contig of 88 bp in length 6173: contig of 88 bp in length 6173: contig of 88 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6173: contig of 89 bp in length 6178: contig of 89 bp in len | * *         | 54901          |                  | contig                     | of 895           | ď              | Н        |   | ä                    | ć                            | ·                                                           |
| 56654: gap of 100 bp 57877: contig of 8973 bp in length 588777 contig of 8973 bp in length 588773: contig of 8970 bp in length 588773: contig of 8970 bp in length 60794: gap of 100 bp 61773: gap of                                                                      | 57827: contig of 873 bp in length 57827: contig of 873 bp in length 57827: gap of 100 bp 57827: gap of 100 bp 58827: contig of 895 bp in length 58827: contig of 895 bp in length 60594: gap of 100 bp 61673: contig of 880 bp in length 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of 100 bp 6173: gap of  | *           | 55896          |                  | gap or                     | of 859           | ď              | -        |   | Š                    | ע<br>ע                       | Arccoci                                                     |
| 57827; gap of 100 bp in length 58727; contrig of 900 bp in length 58727; contrig of 900 bp in length 58727; contrig of 900 bp in length 58822; gap of 100 bp 5922; contrig of 895 bp in length 60794; gap of 100 bp 64495 ATG 60794; gap of 100 bp 64495 ATG 60794; gap of 100 bp 64495 ATG 60794; gap of 100 bp 64495 ATG 60794; gap of 100 bp 64495 ATG 60794; gap of 100 bp 64495 ATG 60794; gap of 100 bp 64505 CCM 62656; contrig of 883 bp in length 62756; gap of 100 bp 64505 CCM 62656; contrig of 882 bp in length 62756; gap of 100 bp 64505 CCM 62501; gap of 100 bp 64505 CCM 62521; contrig of 891 bp in length 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65591; gap of 100 bp 65501; gap of 100 bp 65501; gap o                                                                     | 57827; Garding of 896 bp in length 58872; contig of 897 bp in length 6074; gap of 100 bp in length 58872; contig of 898 bp in length 6074; gap of 100 bp in length 6074; gap of 100 bp in length 6074; gap of 100 bp in length 6074; gap of 100 bp in length 60773; gap of 100 bp in length 60773; gap of 100 bp in length 60774; gap of 100 bp in length 60775; contig of 891 bp in length 60775; contig of 892 bp in length 60775; contig of 893 bp in length 60775; contig of 894 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 60775; contig of 895 bp in length 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap of 100 bp 707520; gap | * *         | 56755          |                  | gap of                     | 100 bp           | 1              |          |   | q                    | 6432                         | s Arccccrr                                                  |
| \$8727; contig of 900 bp in length  \$8822; gap of 100 bp  \$9822; gap of 100 bp  \$9822; gap of 100 bp  \$60794; gap of 100 bp  \$60794; gap of 100 bp  \$61673; contig of 883 bp in length  \$63736; gap of 100 bp  \$6458; contig of 882 bp in length  \$63736; gap of 100 bp  \$6458; contig of 882 bp in length  \$6581; contig of 884 bp in length  \$65821; contig of 884 bp in length  \$65822; contig of 885 bp in length  \$66822; gap of 100 bp  \$66822; contig of 885 bp in length  \$69828; contig of 885 bp in length  \$69828; contig of 885 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$69828; contig of 889 bp in length  \$6982 | \$8727; Contig of 900 bp in length \$88729; Capt of 100 bp 60794; Contig of 895 bp in length 60794; Contig of 895 bp in length 60794; Contig of 895 bp in length 60794; Contig of 895 bp in length 60795; Contig of 895 bp in length 60795; Contig of 895 bp in length 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62756; Gap of 100 bp 62757; Contig of 891 bp in length 62758; Contig of 892 bp in length 62759; Contig of 893 bp in length 62751; Contig of 893 bp in length 62751; Contig of 893 bp in length 62751; Contig of 897 bp in length 62751; Contig of 897 bp in length 62751; Contig of 897 bp in length 62751; Contig of 897 bp in length 62751; Contig of 897 bp in length 62751; Contig of 897 bp in length 62751; Contig of 897 bp in length 62751; Contig of 897 bp in length 627520; Contig of 895 bp in length 70520; Contig of 805 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | *           | 57728          |                  | gap of                     | 100 bp           | )<br>)         | 4        |   | 6                    | 105                          | ATG                                                         |
| 59822; contig of 895 bp in length 60794; gap of 100 bp 60794; gap of 100 bp 60794; gap of 100 bp 60794; gap of 100 bp 61673; contig of 883 bp in length 60794; gap of 100 bp 62756; gap of 100 bp 63736; gap of 100 bp 64508; contig of 882 bp in length 63736; gap of 100 bp 64518; contig of 882 bp in length 65791; contig of 881 bp in length 65792; contig of 882 bp in length 65793; gap of 100 bp 65793; contig of 881 bp in length 65793; contig of 881 bp in length 65823; gap of 100 bp 65823; gap of 100 bp 65823; contig of 882 bp in length 65823; contig of 883 bp in length 65823; contig of 882 bp in length 65823; contig of 882 bp in length 65823; contig of 883 bp in length 65823; contig of 884 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 65823; contig of 885 bp in length 70520; contig of 885 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 59722: contig of 895 bp in length 60794: gap of 100 bp 60794: gap of 100 bp 60794: gap of 100 bp 60794: gap of 100 bp 61773: contig of 879 bp in length 60794: gap of 100 bp 61773: gap of 100 bp 62756: gap of 100 bp 63736: gap of 100 bp 64518: contig of 882 bp in length 63736: gap of 100 bp 64518: contig of 882 bp in length 63736: gap of 100 bp 64518: contig of 881 bp in length 65521: contig of 881 bp in length 65523: gap of 100 bp 65531: contig of 881 bp in length 65532: gap of 100 bp 65532: gap of 100 bp 65532: gap of 100 bp 65532: gap of 100 bp 65532: gap of 100 bp 65532: gap of 100 bp 65532: gap of 100 bp 65532: gap of 100 bp 65533: gap of 100 bp 65532: contig of 892 bp in length 65532: gap of 100 bp 67523: contig of 892 bp in length 69518: contig of 893 bp in length 69518: contig of 895 bp in length 69518: contig of 895 bp in length 69518: contig of 895 bp in length 69518: contig of 895 bp in length 69518: contig of 895 bp in length 69518: contig of 895 bp in length 70520: contig of 895 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | * *         | 57828          |                  | contig                     | of 900           | đ              | $\neg$   |   | 7 1                  |                              |                                                             |
| 99822; gap of 100 bp 60694; contig of 872 bp in length 60794; gap of 100 bp 60794; gap of 100 bp 60794; gap of 100 bp 60794; gap of 100 bp 60794; gap of 100 bp 60704; gap of 100                                                                     | 99822; gap of 100 bp 60694; contig of 872 bp in length 60794; gap of 100 bp 606945. Contig of 873 bp in length 61773; gap of 100 bp 61773; gap of 100 bp 62565; contig of 883 bp in length 62756; gap of 100 bp 63365; contig of 882 bp in length 63736; gap of 100 bp 64505; gap of 100 bp 64508; gap of 100 bp 65591; contig of 873 bp in length 65591; contig of 873 bp in length 65522; contig of 873 bp in length 65523; contig of 873 bp in length 67523; contig of 873 bp in length 67523; contig of 874 bp in length 67523; contig of 875 bp in length 67523; contig of 875 bp in length 67523; contig of 875 bp in length 67523; contig of 875 bp in length 67523; contig of 875 bp in length 67523; contig of 875 bp in length 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 bp 77620; gap of 100 b | t, <b>*</b> | 58828          |                  | gap or                     | 100 pp           | Q              |          |   | qq                   | 6438                         | ATG                                                         |
| 60794; contrig of 872 bp in length 61673; contrig of 883 bp in length 6256; capting of 883 bp in length 62736; gap of 100 bp 64505 CC 6256; capting of 882 bp in length 64718; capting of 883 bp in length 64718; capting of 873 bp in length 65591; capting of 874 bp in length 65591; capting of 875 bp in length 6551; capting of 875 bp in length 77520; capting of 875 bp in length 87520; capting of 875 bp in length 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting of 87520; capting                                                                      | 60794; Contrig of 872 bp in length 61673; Contrig of 883 bp in length 62756; gap of 100 bp 64505 CC 62656; contrig of 883 bp in length 62756; gap of 100 bp 64505 CC 62656; gap of 100 bp 64505 CC 63736; gap of 100 bp 64505 CC 63736; gap of 100 bp 64505 CC 62651; gap of 100 bp 64505 CC 62651; gap of 100 bp 64505 CC 62591; gap of 100 bp 64505 CC 65291; gap of 100 bp  | * *         | 59723          |                  | gap of                     | 100 bp           |                | -        | - | ò                    | 111                          | -                                                           |
| 61673: contrig of 879 bp in length 62656: contrig of 881 bp in length 62656: contrig of 882 bp in length 63736: gap of 100 bp 63736: gap of 100 bp 64718: gap of 100 bp 64718: contrig of 882 bp in length 65591: contrig of 873 bp in length 65591: contrig of 874 bp in length 65591: contrig of 891 bp in length 66532: contrig of 892 bp in length 66532: contrig of 893 bp in length 66532: contrig of 893 bp in length 66532: contrig of 893 bp in length 66532: contrig of 893 bp in length 66532: contrig of 893 bp in length 66532: contrig of 893 bp in length 66532: contrig of 895 bp in length 69515: contrig of 869 bp in length 69615: gap of 100 bp 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 61673: contrig of 879 bp in length 6276: gap of 100 bp 6276: gap of 100 bp 63736: contrig of 881 bp in length 63736: gap of 100 bp 63736: gap of 100 bp 64618: contrig of 882 bp in length 64618: contrig of 882 bp in length 65591: gap of 100 bp 65591: gap of 100 bp 65591: gap of 100 bp 65532: contrig of 891 bp in length 65532: contrig of 892 bp in length 65533: gap of 100 bp 65531: gap of 100 bp 65532: contrig of 893 bp in length 65532: contrig of 893 bp in length 65532: contrig of 893 bp in length 65532: contrig of 893 bp in length 65532: contrig of 893 bp in length 65533: gap of 100 bp 65533: gap of 100 bp 65534: contrig of 893 bp in length 65535: contrig of 893 bp in length 65536: gap of 100 bp 70520: contrig of 869 bp in length 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | *           | 60695          |                  | gap of                     | 100 bp           | ე,<br>ე        | 4        |   | qQ                   | 6444                         | - K                                                         |
| 62656: contig of 803 bp in length 62656: contig of 803 bp in length 62756: gap of 100 bp 63736: gap of 100 bp 64618: contig of 802 bp in length 63736: gap of 100 bp 64618: contig of 803 bp in length 65521: contig of 803 bp in length 65521: gap of 100 bp 66522: contig of 803 bp in length 66532: gap of 100 bp 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67523: contig of 803 bp in length 67520: contig of 803 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 62656: contig of 883 bp in length 62756: gap of 100 bp 62756: gap of 100 bp 63736: contig of 880 bp in length 63736: gap of 100 bp 64618: contig of 882 bp in length 64718: gap of 100 bp 65531: contig of 873 bp in length 65531: contig of 874 bp in length 65532: contig of 875 bp in length 67523: contig of 875 bp in length 67520: contig of 875 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                  | * *         | 60795          |                  | contig                     | of 879           | ď              | ~        |   |                      |                              | 1                                                           |
| 63636: gap of 100 bp 63636: contig of 880 bp in length 63736: gap of 100 bp 64618: contig of 882 bp in length 64718: gap of 100 bp 65531: contig of 873 bp in length 65532: gap of 100 bp 66532: gap of 100 bp 66532: gap of 100 bp 67523: contig of 891 bp in length 66532: gap of 100 bp 67523: contig of 891 bp in length 67523: contig of 892 bp in length 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 bp 67623: gap of 100 pp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 63636: gap of 100 bp 63636: contig of 880 bp in length 63736: gap of 100 bp 64618: contig of 882 bp in length 64618: contig of 882 bp in length 64521: contig of 873 bp in length 65521: contig of 874 bp in length 66532: gap of 100 bp 66532: gap of 100 bp 67523: contig of 891 bp in length 66532: gap of 100 bp 67523: contig of 892 bp in length 67523: contig of 893 bp in length 67523: contig of 893 bp in length 67523: contig of 892 bp in length 69518: contig of 893 bp in length 69518: contig of 893 bp in length 69518: contig of 893 bp in length 69518: contig of 893 bp in length 69518: contig of 893 bp in length 69518: contig of 893 bp in length 77620: contig of 893 bp in length 77620: contig of 893 bp in length 77620: gap of 100 bp 77620: gap of 100 bp 77620: gap of 100 bp 77620: gap of 100 bp 77620: gap of 100 bp 77620: gap of 100 bp 77620: gap of 100 bp 77620: gap of 100 bp 77620: gap of 100 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | *           | 61774          |                  | gap or contig              | 100 DF<br>Of 883 | dq             | -        |   | Š                    | 11,                          | CCATA                                                       |
| 63736: gap of 100 bp 64718: contrig of 882 bp in length 65591: contrig of 882 bp in length 65591: contrig of 883 bp in length 65591: contrig of 884 bp in length 65591: gap of 100 bp 65231: contrig of 895 bp in length 69518: contrig of 895 bp in length 69518: contrig of 897 bp in length 69518: gap of 100 bp 69518: contrig of 897 bp in length 69518: gap of 100 bp 69518: contrig of 897 bp in length 69518: gap of 100 bp 69518: contrig of 897 bp in length 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 100 bp 69518: gap of 10                                                                     | 63736: gap of 100 bp 64718: contrig of 882 bp in length 65591: gap of 100 bp 65591: gap of 100 bp 65591: gap of 100 bp 65591: gap of 100 bp 65591: gap of 100 bp 65591: gap of 100 bp 65591: gap of 100 bp 65521: contrig of 891 bp in length 65521: contrig of 891 bp in length 65521: contrig of 891 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 65521: contrig of 892 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 bp in length 70520: contrig of 869 b | * *         | 62657          |                  | gap of                     | 100 bp           | 9              | -        |   | Q₽                   | 6450                         |                                                             |
| 64618: contrig of 882 bp in length 65591: gap of 100 bp 65591: gap of 100 bp 65532: gap of 100 bp 66532: contrig of 891 bp in length 66532: gap of 100 bp 67523: contrig of 891 bp in length 66532: gap of 100 bp 67523: contrig of 895 bp in length 67525: contrig of 897 bp in length 67526: contrig of 897 bp in length 67520: contrig of 897 bp in length 67520: contrig of 897 bp in length 67520: contrig of 898 bp in length 67520: contrig of 898 bp in length 67520: contrig of 899 bp in length 67520: contrig of 889 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 64618: contig of 882 bp in length 64518: contig of 882 bp in length 65591: day of 100 bp 65591: gap of 100 bp 66532: gap of 100 bp 66532: gap of 100 bp 67523: contig of 891 bp in length 66532: gap of 100 bp 67523: contig of 895 bp in length 68518: contig of 895 bp in length 69518: gap of 100 bp 70520: contig of 805 bp in length 70520: contig of 805 bp in length 70520: contig of 805 bp in length 70520: contig of 805 bp in length 70520: contig of 805 bp in length 70520: gap of 100 bp 70520: contig of 805 bp in length 70520: gap of 100 bp 70520: contig of 805 bp in length 70520: gap of 100 bp 70520: gap of 100 bp 70520: contig of 805 bp in length 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | *           | 63637          |                  | gap of                     | 100 bp           | 24             | 4        |   |                      |                              |                                                             |
| # 100 to the first office of the first office of the first office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office office                                                                     | # 100 Up                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | * *         | 63737          |                  | contig                     | of 882           | ď              |          |   | RESULT               | 15                           |                                                             |
| 65691: gap of 100 bp 66532: contig of 841 bp in length 66532: gap of 100 bp 67523: contig of 891 bp in length 67523: contig of 895 bp in length 67523: contig of 895 bp in length 67523: contig of 895 bp in length 69518: contig of 895 bp in length 70520: contig of 805 bp in length 70520: contig of 805 bp in length 70520: contig of 869 bp in length 70520: contig of 869 bp in length 70520: contig of 869 bp in length 70520: contig of 869 bp in length 70520: contig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 65691: gap of 100 bp 66532: contig of 841 bp in length 66532: gap of 100 bp 67523: contig of 891 bp in length 67523: contig of 891 bp in length 67523: gap of 100 bp 68518: contig of 895 bp in length 69518: contig of 897 bp in length 69518: contig of 897 bp in length 69518: contig of 805 bp in length 70520: contig of 805 bp in length 70520: contig of 869 bp in length 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | * *         | 64719          |                  | gap or                     | 100 bp<br>of 873 | a              |          |   | BD2291               |                              | 80229108                                                    |
| 66532: gap of 100 bp 67523: contig of 891 bp in length 67523: contig of 895 bp in length 67523: contig of 895 bp in length 67523: contig of 895 bp in length 67523: contig of 895 bp in length 67523: contig of 895 bp in length 67525: contig of 897 bp in length 67526: contig of 898 bp in length 77526: contig of 869 bp in length 77526: contig of 869 bp in length 77526: contig of 869 bp in length 77526: contig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ACCESSION 66632: gap of 100 bp 67523: contig of 891 bp in length 67523: contig of 895 bp in length 68518: contig of 895 bp in length 68518: contig of 895 bp in length 69518: contig of 895 bp in length 69518: contig of 895 bp in length 69518: gap of 100 bp 70520: contig of 905 bp in length 70520: contig of 869 bp in length 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * *         | 65592          |                  | gap of                     | 100 bp           |                | -        |   | DEFINI               |                              | Endogeneous,                                                |
| 67523: contig of 891 bp in length 67623; gap of 100 bp 68518: contig of 895 bp in length 69518: contig of 897 bp in length 69515: gap of 100 bp 69515: gap of 100 bp 70520: contig of 805 bp in length 70620: gap of 100 bp 71489: contig of 869 bp in length 71489: contig of 869 bp in length 70620: gap of 100 bp 71489: contig of 869 bp in length 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 67523: contig of 891 bp in length 67623: gap of 100 bp 68518: contig of 895 bp in length 68518: contig of 897 bp in length 69515: contig of 897 bp in length 70520: contig of 905 bp in length 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp 70620: gap of 100 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | *           | 66533          |                  | gap of                     | 100 bp           |                | +        |   | ACCESS               |                              | receptor.<br>3D229108                                       |
| 68518: contrig of 895 bp in length 68518: contrig of 895 bp in length 68518: contrig of 895 bp in length 69515: gap of 100 bp 70520: contrig of 805 bp in length 70520: contrig of 805 bp in length 70520: contrig of 805 bp in length 70520: gap of 100 bp 70520: contrig of 805 bp in length 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100 bp 70520: gap of 100520: gap of 100520: gap of 100520: gap of 100520: gap of 10052                                                                     | ### ### ### ### ### ### ### ### ### ##                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | * *         | 66633          |                  | contig                     | of 891           | ď              | leng     |   | VERSIO               |                              | 3D229108.1                                                  |
| 68618: gap of 100 bp 69515: contig of 897 bp in length 69515: gap of 100 bp 70520: contig of 905 bp in length 70620: gap of 100 bp 71489: contig of 869 bp in length 71489: contig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 68618: gap of 100 bp<br>69515: contig of 897 bp in length<br>69615: gap of 100 bp<br>70520: contig of 905 bp in length<br>70620: gap of 100 bp<br>71489: contig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | : *         | 67624          |                  | gap or<br>contig           | 100 pp<br>of 895 | Ω,             | Н        |   | SOURCE               |                              | JP 200252168<br>synthetic co                                |
| 69615: gap of 100 bp in length AUTHORS 70520: contig of 869 bp in length 71489: contig of 869 bp in length 70620: gap of 100 bp in length 71489: contig of 869 bp in length 71489: contig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 69615: gap of 100 bp<br>70520: contig of 905 bp in length<br>70620: gap of 100 bp<br>71489: contig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | * *         | 68519          |                  | gap of                     | 100 bp           | Ę              | •        |   | ORGA                 |                              | ynthetic co                                                 |
| 70520: contig of 905 bp in length 70620: gap of 100 bp 71489: contig of 869 bp in length JOURNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 70520: contig of 905 bp in length 70620: gap of 100 bp 71489: contig of 869 bp in length JOURNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | *           | 69516          |                  | gap of                     | 100 bp           | <b>2</b> 4     |          |   | REFERE               |                              | ertificial s<br>L (bases 1                                  |
| 71489: contig of 869 bp in length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 71489: contig of 869 bp in length JOURNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | * *         | 69616          |                  | contig                     | of 905           | ρį             |          |   | AUTH                 |                              | Sehan, D.P.,                                                |
| JOURNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | JOURNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | *           | 70621          |                  | contig                     | 100 DE           | <u>α</u>       |          |   |                      |                              | indogeneous,<br>receptor                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |                |                  |                            |                  |                |          |   | TOUR                 | _                            | Patent: JP 2                                                |

CTGGCCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGGTTTGACGG 516 CCGGCCTTACACCACCATCCTCATGGCATCTACTTTGTGCTTGGGCTCAGC 576 CATCTICTATIGCCTCAICCACCGCCAGGICAAACGAGCAGCAAGGACTG 636 CAAGTTGCGACAGGCAAGCATCCACCACATGTGGCCCAGGACTGATGGG 696 ATCTGAGCCAGTCAGCCACCACACACCCTGGAAGGGACTCATCA 816 AGACCAGATCAACAGCAAGAGGCTAAGCAGATGGGAGAGAAAAGCCCTCCA 876 TGCCAAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCG 936 CTIGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCAC 1056 GECCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCC 1116 CCAATTCCGCCAAGCATAT-GGCTCCATTTTAAAAAGGGGCCCCGGAGTTT 1175 ä 1382 bp DNA linear PAT 17-JUL-2003 constitutionally activated protein G-coupled orphan GI:33038878
581-A/20.
581-A/20.
500struct
500struct
500struct
7 to 1382, 12.
7 the 1282, 12.
7 chalmers, 12.
7 constitutionally activated protein G-coupled orphan
5, constitutionally activated protein G-coupled orphan regreerinceAccageAccageTraccaTeaccageAccageGac AAAGGIGACTCGAAIGIGITITGCIGIGITCCTCTGCTTTGCCCTGAGCTAC 996 59.4%; Score 707.6; DB 2; Length 141003; 98.5%; Pred. No. 1.6e-173; ive 0; Mismatches 10; Indels 1; Gaps JOURNAL Patent: JP 2002521681-A 20 16-JUL-2002; CCATTA 1190 y 98.55 ervative

```
ARENA PHARMACEUTICALS INC

OS Artificial Sequence

PN JP 2002521681-A/20

PD 16-JUL-2002

PR 31-JUL-1998 US 60/094879,30-OCT-1998 US 60/106300 PR

O4-DEC-1998 US 60/10906,26-FRB-1999 US 60/121851 PI

DOMINIC P BEHAN, DEREK T CHALMERS, CHEN LIAW, I LIN LIN, KEVIN PI

LOWITZ,

PT RUDPHING CHEN

PC GOIN33/15, GOIN33/50, GOIN33/566//A61K45/00, A61P43/00, C12N15/09,

PC GIAN15/00

CC DESCRIPTION OF Artificial Sequence: Synthetic Sequence FH

KRY

LOWITZ

LOWITZ

PC GOIN35/15, GOIN33/15, GOIN33/566//A61K45/00, A61P43/00, C12N15/09,

PC GOIN35/15, GOIN33/15, GOIN33/15, GOIN33/566//A61K45/00, A61P43/00, C12N15/09,

PC GOIN35/15, GOIN33/15, GOIN33/566//A61K45/00, A61P43/00, C12N15/09,

PC GOIN35/15, GOIN33/15, GOIN33/566//A61K45/00, A61P43/00, C12N15/09,

PC GOINSTANCE

LOWITZ

PO GOINSTANCE

LOCALING CHEN

LOCALI
 GO1N33/15,GO1N33/50,GO1N33/566//A61K45/00,A61P43/00,C12N15/09,C12N15/00
 100 gacaccergescraterectereceraceerresecarecrasecearecearecerace 159
 160 CGATICAACCIGCICAIAGCCAACCICACAGCIGAICICCICIACIGCACGCICCTI 219
 241 CTCAGCAACAAGTTGGTCTTCAGCCTGACTGTCCAACTTCCTGCTGTCGTGTTGGTG 300
 220 cagocorrereresacaceracerecacerecacerecaceses es es 279
 301 creccrirrangiale de caractecareca a como contra de c
 280 AGGGTATTTGGGCTCCTTTTTGCCTCCAATTCTGTCTCCATCCTGACCTCTGCCTC 339
 361 Aacricierecerecrecreereareaererecrecreerererecaecarecrasecreeres
 340 AICGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGT 399
 421 Atriccatcaccacactatraracratccraractatacacaraaractaraararaara 480
 0
 Query Match 7.4%; Score 87.8; DB 6; Length 1382; Best Local Similarity 53.7%; Pred. No. 1e-11; Matches 182; Conservative 0; Mismatches 157; Indels 0;
 rce / Organism='Artificial Sequence'.
Location/Qualifiers
1 .1382
/ organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
 400 GCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTT 438
 481 GGGAACCGGGCTGTGATGGCACTTGTCTACATCTGGCTT 519
 Search completed: September 24, 2004, 02:47:16 Job time : 4855.11 secs
 source
 FEATURES
 COMMENT
 ORIGIN
 ò
 g
 QQ
 ò
 g
 δ
 ВÞ
 ઠે
 à
```

Abv73374 Mouse TGR

7 ABV73374

```
74.5
 887.6
 24
 Abz42892 Human GPC
Aai66793 Human MAR
Acc84331 Human MAR
Acc84331 Human hp1
Aas88070 Human DNA
Abz42551 Human MP2
Aah77029 Human MP2
Aah7812 Human exp
Aah7812 Human exp
Aah7812 Human exp
Aah7812 Human exp
Aas2896 Genomic s
Aas38064 DNA #14 e
Aas2896 Human gen
Aba6789 Human gen
Aba6789 Human gen
Aba677891 Human gen
Aba677891 Human gen
Aba677891 Human gen
Aba677891 Human gen
Aba677891 Human gen
Aba677891 Human gen
 Human pol
Human gen
Human neo
Human MAR
Human TGR
 September 23, 2004, 22:02:34 ; Search time 537.426 Seconds (without alignments) 9414.519 Million cell updates/sec
 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
 1 atgtggaacagctctgacgc......gtttccataggctccattag 1191
 Description
 Abt17029
Ab24251
Ab242521
Ab242521
Ab242521
Ab26220
Ab202027
Ab262064
Ab262064
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab267891
Ab26898
 GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
 Total number of hits satisfying chosen parameters:
 3373863 segs, 2124099041 residues
 SUMMARIES
 US-10-029-436-1_COPY_61_1251
1191
 Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries
 using sw model
 ABZ42892
 IDENTITY_NUC Gapopt 1.0
 N. Geneseq 290an04:*

1. geneseqn1980s:*

3. geneseqn2001s:*

4. geneseqn2001as:*

5. geneseqn2001bs:*

6. geneseqn2003as:*

7. geneseqn2003as:*

8. geneseqn2003bs:*

9. geneseqn2003bs:*
 geneseqn2004s:
 Minimum DB seq length: 0
Maximum DB seq length: 200000000
 DB
 Length
 111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
111115
11
 2046
5460
1188
1416
 nucleic search,
 Query
Match 1
 100.0
99.7
96.9
 100.0
 100.0
 100.0
 100.0
 Title:
Perfect score:
Sequence:
 Scoring table:
 ı
 OM nucleic
 Database :
 Searched:
 Run on:
 Result
```

| AA8998133 Human DNA AAK77580 Human imm Ab18976 Human imm Ab2899 E UMAn imm Aa82899 E DNA enco Aa834782 CDNA enco Aa834782 CDNA enco Ab29575 Human exp Ab406396 Human CDN Ab443453 DNA encod Ab459573 Human exp Ab407774 Novel hum Abv83733 Human pol Ac401422 Human pol Ac45940 Human neo Az51461 Human neo Az51461 Human G p Ad245915 Human G p Ad245915 Human G p Ad242815 Human G p Ad242815 Human G p Ad242815 Human G p Ad26767 Human G p Ad26767 Human G p Ad26767 Human G p Ad26767 Human G p Ad26767 Human G p Ad26767 Human G p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SINS              |           |              | Ď.           | or; signal transduction; olfactory;<br>ragrance; gene; ds. |              |             |           |          |           |               | !         |                                | coupled receptors, proteins and gnal transduction mechanism and sut. | Listing; Japanese. | The invention relates to a method for screening G protein-coupled receptor (GPCR) genes (ABZ42870-ABZ43216) and/or GPCR proteins (ABP55596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS596-ABS |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|--------------|--------------|------------------------------------------------------------|--------------|-------------|-----------|----------|-----------|---------------|-----------|--------------------------------|----------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AAS 943,4<br>AAS 98133<br>AAK60376<br>AAS28939<br>AAS30167<br>AAS30167<br>AAS30167<br>AAS9955<br>AAS9955<br>AAS9955<br>ABA 199575<br>ABA 199576<br>ABA 199576<br>AAA | ALIGNMENTS 1 BP.  |           |              | SEQ ID NO 45 | ed recept<br>taste; f                                      |              |             |           | 6.       |           | OGY CORP.     | S;        |                                | G protein-couple<br>in vivo signal t<br>g development.               | + Sequence         | method for 2870-ABZ433 n-reading i acid resiptor proteinsduction insduction ased on old nists by skibitors, teibitors, te                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ~ W 4 W 4 4 4 4 4 4 4 W W W P P O M P P 0 M P P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1191              |           | <del>3</del> | de S         | coupl(                                                     |              |             |           | 44       | 43        | TECHNOLOGY    | taku      |                                | for<br>ing<br>dru                                                    | 4d16               | ABZ4<br>ODE<br>ODE<br>rece<br>tra<br>tra<br>tra<br>inh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DNA;              |           | t entry)     | eoti         | stein co<br>gustato                                        |              |             |           | 10-IB001 | IP-00237  | & TEC         | Mit       | 4.                             | l search for G<br>for studying in<br>rgets for drug                  | 45;                | ttes to<br>thes (incting<br>tothing<br>1000 ar<br>The ingral<br>signal<br>ant e.g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| r r n w d d d d d d d d d d d d d d d d d d                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | standard;         |           | (firs        | polynucl     | , G prot<br>pment, g                                       |              | -A2.        |           | , 2001WO | ; 2000JP. | AN SCI        | Takeda S, | 04118/3 <sup>,</sup><br>95618. | ta<br>ta                                                             | ON CI C            | on rela<br>y extra<br>h 250-1<br>R gene.<br>vivo e<br>velopme<br>nists a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2892              | ABZ42892; | 06-MAR-2003  | ın GPCR      | Human; GPCR; G p<br>drug development                       | Homo sapiens | WO200216548 | -FEB-2002 | UL-2001  | NG-2000   | (NISC-) JAPAN | ,<br>F    | 200<br>DB;                     | tbase gloded gen                                                     | Claim 9; SEQ       | e inventi<br>deptor (G<br>P95942) b<br>mains with<br>known GPC<br>udying in<br>r drug de<br>rm of ago<br>gands as                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ULT<br>4289<br>AB | AB        | 90           | Hu           | H.                                                         | Н            | Σ.          | 28        | 30       | 13        | Z             | На        | WP-                            | Da                                                                   | ប                  | The Abb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | RESI<br>ABZ       | XX<br>V   | žE;          | X E X        | <b>E</b> E:                                                | 48¥          | 4 Z X       | £ € \$    | 4 H S    | 2 H H H   | 8 8           | P. P.     | <b>488</b>                     | *                                                                    | PS X               | CC ABPS<br>CC ABPS<br>CC ABPS<br>CC A COM<br>CC A CC<br>CC CC STUC<br>CC FOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |           |              |              |                                                            |              |             |           |          |           |               |           |                                |                                                                      |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

```
TGTTTTGCTGTGCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 croangerrecarcaaccererecrevarecaeceareaaceecearraceeceaarreceecaaea
 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 monoamine receptor-1; human; cytostatic; gene therapy; tumour; iatric disorder; transgenic animal; knockout animal; ss.
 TATGGCTCCATTTTAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 Score 1191;
Pred. No. 0;
 Location/Qualifiers
19. .1209
/*tag= a
/product= "MAR1"
 gene, MAR1,
 receptor-1 protein
 Disclosure; Page 4; 6pp; German.
 AAI68793 standard; cDNA; 1227
 100.0%;
 03-MAY-2000; 2000DE-01021474
 03-MAY-2000; 2000DE-01021474
 New monoamine receptor-1
of MAR1-related diseases.
 Human MAR1 cDNA fragment
 WPI; 2002-011956/02.
P-PSDB; AAG80225.
 Bruess M, Boenisch
 Query Match
Best Local Similarity
 BRUESS M.
BOENISCH 1
 (BRUE/) BRUESS
 DE10021474-A1
 sapiens
 22-JAN-2002
 psychiatric
 08-NOV-2001
 1081
 1141
 961
 1021
 1081
 1021
 961
 (BOEN/)
 Ношо
 AAI68793
ID AAI
 RESULT
 q
 8
 g
 \delta
 g
 8
 g
 ö
improvers. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
 120
 180
 240
 300
 720
 120
 180
 240
 300
 360
 360
 420
 420
 480
 480
 540
 540
 600
 600
 9
 660
 720
 780
 780
 840
 840
 900
 900
 960
 9
 9
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 TTTGCCTCCAATTCTGTCTCCTGATCCTGCCTCTGCCTCATCGCACTGGGACGCTACCTC
 Agcarccacrccaaccargraggaccaggacrgargaggccargccrggrcgrrrccaggag
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACCC
 AACCTCACACTGGCTGATCTCCTCTACTGCTCCTTCAGCCCTTCTCTGTGGACACC
 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTCATTGCCCACCCTAAGCTTTTCCCCCAAGTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 GCTGCCACCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAAGCAGATGGCAGAAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAAGCCA
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 crcarrecccacceraagerrrrrecccaagrrrreagreccaagggaragrecreea
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGAGGCACTGGACCAATACAAGTTGCGACAGGCA
 cregacaecaegrinaecarcaegaececaereaegeegearrincarcheaeceaereaer
 Gaps
 ö
 6; Length 1191;
 U; 0 Other;
 Indels
 .
0
 C; 294 G; 285 T; 0
 DB
 Query Match
100.0%; Score 1191;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1191; Conservative 0; Mismatches
 Sequence 1191 BP; 242 A; 370
 61
 121
 181
 181
 241
 241
 301
 361
 361
 421
 481
 541
 541
 601
 601
 199
 781
 781
 841
 106
 901
 301
 421
 481
 661
 721
 721
 និង្គស្ល
 qq
 g
 임
 Dp
 g
 ò
 ò
 g
 ò
 d
 ò
 d
 \delta
 g
 à
 ò
 면
 ò
 ò
 qq
 ò
 Вþ
 ò
 a
 음
 엄
 ò
 g
 δ
 ò
 à
```

```
gene (I),
 treatment
 This invention describes a novel human monoamine receptor-1 (WAR1) gen and derived (anti)sense oligonuclectides, are useful in treatment and diagnosis of (anti)sense oligonuclectides, are useful in treatment and diagnosis of (I)-related diseases (possibly tumours and psychiatric disorders), for producing transgenic/knockout animals, and for recombinant expression of the protein (II) that it encodes. (II) is resetul in ligand-binding studies and screening assays, also for treatment diagnosis of (II)-related diseases. This sequence encodes the huma
 and
 Length 1227;
 U; 0 Other
useful for diagnosis
 ..
 Sequence 1227 BP; 249 A; 383 C; 299 G; 296 T; 0
 DB
```

g  $\delta$ g ð  $\delta$ g  $\stackrel{\circ}{\circ}$ d δ g ò g δ g ò ДÇ  $\delta$ g ò

```
1158
 ö
 120
 The present sequence is that of nucleic acid encoding a human orphan G-protein coupled receptor, designated hp15a. The sequence was initially identified in a human placenta genomic library using probes representing transmembrane domains III, V and VI of human serotonin 5-HYIDbeta receptor. The encogenous ligand for hp15a is likely to be a neuromodulator annee the receptor is present in several regions of the human brain. The invention provides hp15a nucleic acids, vectors, host cells, antibodies, probes, antisense oligonuclectides, transgent non-human animals, methods of isolating the receptor; methods of transfer abnormality that is associated with activity of hp15a e.g. cardiovascular or gastrointestinal disorders, and methods of determining binding of
 of treating an cardiovascular
 New recombinant nucleic acid, useful for preparing a composition for treating disorders linked to human hpl5a receptor e.g. cardiovascular or gastrointestinal disorders.
 61 AIGIGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGGA
 CTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGGCTCCATTTTAAAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 ·
0
 DB 8; Length 1311;
 Human, hpl5a, receptor, G-protein coupled receptor, cardiant,
gastrointestinal, gene therapy, gene, ds.
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG
 Sequence 1311 BP; 266 A; 409 C; 315 G; 321 T; 0 U; 0 Other;
 Indels
 .
0
 100.0%; Score 1191;
100.0%; Pred. No. 0;
ive 0; Mismatches
 Location/Qualifiers
61. .1251
/*tag= a
/product= "hp15a"
 receptor coding sequence.
 CTCAATGGTTGCATCAACCCTGTGCT
 Claim 1; Fig 1A-B; 98pp; English.
 ВР
 19-DEC-2002; 2002WO-US040612.
 2001US-00029436.
 ACC84331 standard; DNA; 1311
 (SYNA-) SYNAPTIC PHARM CORP
 entry)
 Conservative
 Weinshank R;
 WPI; 2003-5591.73/52.
P-PSDB; ABR52422.
 (first
 Similarity
 19-DEC-2001;
 Homo sapiens
 Human hp15a
 03-JUL-2003.
 03-OCT-2003
 Best Local Sim
Matches 1191;
 Smith KE,
 ACC84331;
 1159
 1081
 1099
 1141
 Query Match
 ACC8433
 RESULT
 g
 ð
 g
 ò
 엄
 TGTTTTGCTGTGTTCCTCTGCTTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT 1020
 rerringergrecretegentracecrassecracarecerrerrecretegatar 1038
 CIGGAIGCCAGAGTCCAGGCTCCCCGGGIGGICCACAIGCTIGCTGCCAACCTCACCTGG 1080
 738
 900
 960
 120
 138
 180
 198
 240
 258
 300
 318
 360
 378
 420
 438
 480
 498
 540
 558
 900
 618
 099
 678
 720
 780
 798
 840
 858
 918
 78
 9
 CTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGCCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCTTTGCTCCCCTCTGGCCTATTTATATC
 GCTGCCACCACCCAGACCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 ATTAAAGGAGCCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 121 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 199 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 259 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 TITGCCTCCAATTCTGTCTCCCATCCTGACCTCTGCCTCATCGCACTGGGACGCTACCTC
 ставтавасьсствавтичевасвтвессявсттветсесстствеститатате
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 Agcarccacrccaaccargregecaggacrgargaggccargccrggregrcarracaggag
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 argregaacagerereseceaacricieneeracardagarererereserarer
 TATGTTGCAGTTAGCTGGGGGGGGGTGGTGGTGTGTGACAGGCACCGTGGGCAATGTGCTC
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 601 ATCCACCGCCAGGTCAAACGAGCAGCAGGCACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
Gaps
 .
0
 TACCTCCACCTGCACTGCCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCT
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCT
 Indels
 .;
0
 Mismatches
 ö
 Conservative
 Matches 1191;
 139
 619
 619
 979
 1021
 439
 739
 781
 841
 859
 901
 919
 19
 61
 181
 241
 319
 379
 499
 541
 559
 661
 721
 799
 961
 301
 361
 421
 481
 g
 원
 8 8
 ò
 g
 8
 g
 g
 S
 g
 ò
 ò
 ò
```

```
This cDNA encodes a human 7-transmembrane receptor, HNFUD15. HNFUD15 is a human G-protein coupled receptor and are used in vaccines to protect mammals from infections e.g. Datcherial, fungal, protozoan and viral infections (especially infections caused by HIV-1 or HIV-2), cancers and Parkinson's disease. The HNFUD15 polypeptides can be used to produce antibodies which are used to treat such infections, isolate or identify clones expressing the polypeptide or to purify the polypeptide. The polypeptide or to purify the polypeptide. The polypeptide or activating or inhibiting activation of HNFUD1S. They can be used to activating or inhibiting activation of HNFUD1S. They can be used to activity of HNFUD1S.
 Human G-protein coupled receptor, HNPJD15 - used e.g. in treatment and diagnosis of infections e.g. by HIV-1, HIV-2 and cancers and screening of antagonistic or agonistic compounds.
 G-protein coupled receptor; HNFJD15; treatment; diagnosis; infection; HIV-1; HIV-2; cancer; screening; human; 7-transmembrane receptor; Parkinson's disease; vaccine; ss.
 76 ATGIGGAACAGCICIGACGCCAACTICICCIGCTACCAIGAGICIGIGCIGGGCTAICGI
 TATGTTGCAGTTAGCTGGGGGGGGGTGGTGGCTGTGACAGGCACGGTGGGCAATGTGCTC
 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 /*tag= a
/product= "human 7-transmembrane receptor, HNFJD15"
 0;
 Query Match 100.0%; Score 1191; DB 2; Length 1498; Best Local Similarity 100.0%; Pred. No. 0; Marches 1191; Conservative 0; Mismatches 0; Indels 0;
 1201 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATAG
TTCCATAGGCTCCATTAG
 Seguence 1498 BP; 346 A; 438 C; 349 G; 365 T; 0 U; 0 Other;
 Human 7-transmembrane receptor encoding cDNA clone HNFJD15
 ΰ
 Ellis
 Bergsma DJ,
 Location/Qualifiers
76. .1266
 ВР
 (SMIK) SMITHKLINE BEECHAM CORP.
 standard; cDNA; 1498
 Claim 4; Fig 1; 19pp; English.
 97EP-00309347.
 97US-00775428
 (first entry)
 Sathe GM, Fuetterer WS,
 WPI; 1998-364650/32.
P-PSDB; AAW62598.
 sapiens
 20-NOV-1997;
 09-JAN-1997;
 07-OCT-1998
 EP853125-A2
 15-JUL-1998
1141
 AAV38513
 AAV38513;
 19
 Homo
 RESULT
 S
 g
 ò
 셤
 g
 à
 1020
 1080
 1080
 1140
 1141 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1020
 1140
 180
 180
 240
 240
 420
 480
 540
 540
 009
 009
 660
 120
 300
 300
 racerccacerscaerscaecescesescerecreerscaescrarrasserecreering 360
 360
 420
 480
 099
 720
 720
 AGCATCCACTCCACATGTGGCCAGGACTGATGAGGCCCATGCCTGGTTGTTTCCAGGAG 780
 780
 840
 840
 900
 900
 960
 960
 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 <u> ACCCTACTGGCCTTGGCCCATCCAGCCCAAGCTCCGTACCCGGATTCAACCTGCTCATAGCC</u>
 AACCTCACACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCCTTCTCTGTGGACACC
 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTGTGGACACC
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 TTTGCCTCCAATTCTGTCTCCTGACCCTCTGCCTCATCGCACCGGACGCTACTC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 CTCATTGCCCAAGCCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 credareccadacrecadecrecedenderecacarecridereceaacereaeres
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 derraceaceaceacacearaceas acres a consequence de co
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCT
 121
 121
 181
 181
 241
 301
 361
 481
 541
 541
 601
 661
 661
 721
 721
 781
 781
 841
 841
 901
 901
 961
 1021
 1021
 1081
 1081
 61
 241
 301
 361
 421
 421
 481
 601
 961
 a
 g
 à
 g
 g
 g
 ò
 d
 8
 d
 8
 g
 à
 g
 ò
 d
 8
 g
 ò
 ò
 임
 ò
 ò
 \delta
 DP
 ò
 qq
 셤
 임
 g
 8
 ò
 셤
 \delta
 à
```

ö

Gaps

135 120

셤 à g à 셤 ò

```
1215
 TGTTTTGCTGTTCCTCTGCTTTTGCCCTGAGCTACATCCCCTTTGCTGCTGCTCAACATT 1020
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1095
 CICAAIGGIIGCAICAACCCIGIGCICIAIGCAGCCAIGAACCGCCAAITCCGCCAAGCA 1140
 720
 855
 915
 975
 255
 240
 315
 300
 375
 360
 435
 420
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 495
 480
 555
 540
 615
 600
 99
 735
 795
 780
 840
 AAGAGGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 900
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG 960
180
 196 ACCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 256 AACTICACACTGGGTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CIGGIGAGCACCIGGGITGIGGGGGGGGGCAGCIIIGGGGTGCCCCTCIGGCCTAITTATAIC
 676 ATCCACCGCCAGGTCAAACGAGCAGCACGGCACTGGACCAATACAAGTTGCGACAGGCA
 661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 AGCATCCACTCCAACCATGTGGCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 856 GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGGGGGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 TACCTCCACCTGCACTGCGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT
 rrrecerceaarrererecarecreaecererecercaeecereaecereaecere
 CTCATTGCCCACCCTAAGCTTTTCCCCAAGTGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCTTTGCTCCCCTCTGGCCTATTTATATC
 cregraccreraercrecaecrecaecriraeccecareceaececeecriraeaeceaec
 ATCCICATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCCCAGGTCAAACGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 cregacaecaecarragearcaeaegacccaercaegegarrrearcreaeccaercaer
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 316 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 916
 376
 964
 916
 1036
 1021
 1096
 1081
 1156
 1141
 1216
 241
 301
 436
 736
 841
 901
 961
 361
 496
 481
 556
 541
 721
 781
 181
 421
 601
```

Novel G protein-coupled receptor polypeptides including galanin recept polypeptides useful for identifying modulators that are useful for treating Alzheimer's disease, psoriasis, melanoma, multiple sclerosis,

Disclosure; Page 130-131; 144pp; English.

The invention relates to an isolated polypeptide encoded by a nucleic acid molecule that is at least 80% identical to the G protein-coupled (GPCR) polynucleotides included in the specification. Also included are probes based on the GPCR sequences (including antisense probes), a host cell comprising an expression vector comprising the GPCR sequence, antibodies raised against the polypeptides, and methods of identifying modulators of the polypeptides are useful for identifying modulators or antagonists of the novel GPCR polypeptides for expressors, agonists or antagonists of the novel GPCR polypeptides including the GAL4 polypeptide. The antibodies and nucleic acid probes as described above can be used to disagnose a variety of diseases. C described above can be used to disagnose a variety of diseases or and nucleic acid and are used to disagnose a variety of diseases or disorders in which GPCRs are involved e.g., Alzhaimer's diseases or amyorrophic lateral sclerosis, asthma, atherosclerosis, basal cell carcinoma, breast carcinoma, atherosclerosis, basal cell carcinoma, pracessor, carcinoma, actioning disease, confined disease, depression, epilepsy, macular degeneration, lymphoma, melanoma, multiple sclerosis, rheumatoid or steasthritis, schlopprosis, Parkinson's disease, portasis, rheumatoid arthritis, schloppresses, Cromn's disease, perferably, compounds disorders, obesity, diabetes, Alzheimer's disease. Perferably, compounds that decrease or increase the expression of glanain receptor (GAL4) can disorders, obesity, diabetes, Alzheimer's disease. Perferably, compounds that decrease or increase the expression of glanain receptor (GAL4) can be used to treat obesity, diabetes, hyperlipidaemia and stroke. The GPCR nucleic acid is useful for treating the above mentioned disorders by gene therapy techniques. The present sequence is a novel GPCR polynucleotide

Db

셤

g

Вþ 8

 $\overset{\sim}{\circ}$ 

g ò S ठे

ò

g

ò 셤 ò

à

· E

```
Human; G protein-coupled receptor; GPCR; ds; GAL4; galanin receptor; Alzheimer's disease, amyotrophic lateral sclerosis; asthma; artherosclerosis; basal cell carcinoma; breast carcinoma; carcinoma; carcinoma; carcinoma; carcinoma; carcinoma; chronic obstructive pulmonary disease; Crohn's disease; depression; epilepsy; macular degeneration; lymphoma; melanoma; multiple sclerosis; osteoarthritis; osteoporosis; Parkinson's disease; psordasis; rheumatoid arthritis; osteoporosis; Darkinson's disease; tuberculosis; cognition disorder; memory disorder; anorexia; hormonal release disorder; cardiovascular activity disorder; pain perception disorder; obesity; diabetes;
 Pritchard
 Human DNA for potential G protein-coupled receptor #27
 Burmer G, Fabre-Suver C,
 hyperlipidaemia; stroke; gene therapy.
 (LIFE-) LIFESPAN BIOSCIENCES INC.
 ВÞ
 .1-MAY-2001; 2001WO-US015332.
 11-MAY-2000; 2000US-0203217P.
18-MAY-2000; 2000US-0205945P.
 AAS98070 standard; DNA; 1546
 (first entry)
 Brown JP, Miller M,
 WPI; 2002-066595/09.
 WO200185791-A1.
 Homo sapiens.
 12-MAR-2002
 15-NOV-2001.
 AAS98070;
RESULT 5

RASSULT 5

RASS 8070

RAS RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 8070

RASS 807
```

g

ò D ò g ð D.  $\delta$ 임 8 요 8

1170

1080

1230

```
The invention relates to a novel method for identifying a candidate p21 pathway modulating agent. The novel method comprises contacting an assay system, comprising a purified MP21 polypeptide (modifier of p21) or nucleic acid, with a test agent under conditions, so that but for the presence of a test agent. The assay system provides a reference activity and detection of test agent-biased activity of the assay system. The novel method of the invention is useful for identifying a candidate p21 pathway modulating sent. The invention also includes a method for modulating the p21 pathway of a cell, and a method for diagnosing a disease e.g. cancer in a patient. The identified modulators are useful in diagnosis, therapy and pharmaceutical development. The modulators are useful in a variety of diagnostic and therapeutic applications including angiogenic, apoptotic and cell proliferation disorders. This polynucleotide sequence represents a gene encoding an MP21 protein of the
 Cytostatic; p21 pathway modulating agent; cancer; angiogenic; apoptotic; cell proliferation disorder; MP21; gene; ds.
 Identifying candidate p21 pathway modulator, by contacting an assay system having modifiers of p21 polypeptide or gene with a test agent to provide a reference activity in system and detecting test agent-biased activity.
1051 IGHTHIGHTHIGHTHIGGGCTGACTTACATCCCCTTCTTGCTGCTCAACATT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 crcaarderrecardaccererecererecaeceareaececearrececeaaece
 1231 TATGGCTCCATTTTAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1281
 TATGGCTCCATTTTAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 Sequence 1546 BP; 383 A; 442 C; 351 G; 370 T; 0 U; 0 Other;
 Funke RP;
 ď
 Ľ
 Belvin M,
 Example, Page 55-56; 199pp; English.
 Human MP21 gene EX33 SEQ ID No 3.
 品
 12-JUL-2001; 2001US-0305017P.
10-OCT-2001; 2001US-0328491P.
15-FEB-2002; 2002US-0357452P.
 ABT17029 standard; DNA; 1546
 10-JUL-2002; 2002WO-US021549
 (first entry)
 Friedman L, Plowman GD,
 (EXEL-) EXELIXIS INC
 WPI; 2003-221779/21.
P-PSDB; ABJ19755.
 WO2003006990-A1
 Homo sapiens.
 03-APR-2003
 23-JAN-2003
 1081
 1171
 1141
 ABT17029;
 invention
 1111
 1021
 ABT17029
 RESULT
 g
 . ⋩
 g
 ò
 q
 ઠ
 Вb
 961 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCCTTCTTGCTGCTCAACATT 1020
 ö
 1050
 240
 120
 210
 180
 390
 360
 570
 150
 270
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 300
 450
 420
 510
 480
 540
 630
 600
 690
 999
 750
 720
 810
 780
 870
 840
 930
 900
 990
 960
 9
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGGACAGGCACCGTGGGCAATGTGCTC
 ATGIGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGACAGGCACCGTGGGCAATGTGCTC
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 TACCTCCACCTGCACTGCGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGGCTCCTCCTT
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 ATCCACCCCAGGTCAAACGAGCAGCACAGCACTGGACCAATACAAGTTGCGACAGGCA
 ATTANAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 Acceracioscerroscearecascecasocrecoracecastreacerecrecientasee
 CTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGGTTGTGGGCGTGGCCTTTGCTCCCCTCTGGCCTATTTATATC
 credereadeacerrenendesecredeceacerracereceereregeerarrana
 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGGGCCTTACACCACC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCCCCAGGTCAAACGAGCAGCACAGCACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 GCTGCCACCACCCAGACCCTGGAAGGGGAACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 Gaps
 <u>TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT</u>
 ô
 6; Length 1546;
 C; 351 G; 370 T; 0 U; 0 Other;
 Indels
 ;
0
 DB
 Query Match 100.0%; Score 1191; Best Local Similarity 100.0%; Pred. No. 0; Matches 1191; Conservative 0; Mismatches
 A; 442
 Sequence 1546 BP; 383
 of the invention
 Н
 91
 61
 151
 121
 211
 181
 271
 241
 331
 391
 361
 451
 421
 511
 481
 571
 541
 63.1
 601
 691
 199
 751
 811
 781
 871
 841
 931
 901
 991
 301
 721
 SXS
 qq
 à
 g
 à
 Db
 à
 qq
 g
 ò
 셤
 8
 g
 ò
 Dp
 ò
 g
 ò
 ò
 à
 g
 8
 В
 ò
 P
 음
 원
 ò
 셤
 d
 à
 ò
 \delta
 8
```

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCATS:  MESCAT |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Query Match         100.0%;         Score 1191;         DB 7;         Length 1546;           Best Local Similarity         100.0%;         Pred. No. 0;         Mismatches         0;         Indels         0;         Gaps         0;           Qy         1 ATGTGGAACAGGTTGAGGCAACTTGTCTGCTGAGAGTCTGTGGGGCTATGTG         0         0         0         0;         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 | 121 ACCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTA.TCAACTGGCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |

```
osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute inflammation, allergies, Crohn's disease, diabetes, graft versus host disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be used in immunoasarys and immunodiagnosis, ABZ41253 to ABZ42869 encode GPCR proteins given in ABP81675 to ABP82018, which are used in the exemplification of the present invention
 888888888888
```

Sequence 1546 BP; 383 A; 442 C; 351 G; 370 T; 0 U; 0 Other;

| •                  |                 |                                                                                  |
|--------------------|-----------------|----------------------------------------------------------------------------------|
| Query M<br>Best Lo | atch<br>cal Sir | Length 1546;                                                                     |
| Oy                 | T A             | o, mismaccides o, muers o, eigh<br>GCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGGTATGGT 60 |
| Db                 | 91 A            | ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGGCTATCGT 150                |
| ολ                 | 61 TZ           | TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGCGCGGGGGCAATGTGCTC 120                          |
| qq                 | 151 T           | ATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGGGGGGG                                          |
| ζ                  | 121 A(          | ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180                 |
| qq                 | 211 A           | CCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 270                 |
| δλ                 | 181 A           | AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 240                   |
| Db                 | 271 A           | ACCTCACACTGGCTGATCTCCTCTTACTGCTCCTTCAGCCCTTCTCTGTGGACACC 330                     |
| ò                  | 241 T           | ACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT 300                    |
| qq                 | 331 T           | TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 390                 |
| ٥x                 | 301 T           | TTGCCTCCAATTCTGTCTCCTGACCCTCTGCCTCATCGCACTGGGACGCTACTC 360                       |
| Db                 | 391 T           | TTTGCCTCCAATTCTGTTCTCATCCTGACCCTCTGCTCATCGCACTGGGACGCTACCTC 450                  |
| δ                  | 361 C           | TCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 420                   |
| qa                 | 451 C           | CTCATTGCCCACCTAAGCTTTTTCCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 510                 |
| δy                 | 421 C           | CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC 480                |
| Db                 | 511 C           |                                                                                  |
| ٥y                 | 481 C           | CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGGCC                               |
| QQ                 | 571 C           | HEGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGGCC                                |
| ٥٨                 | 541 A7          | ATCCTCATGGGCATCTATGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 600                    |
| qq                 | 631 AT          | ICCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 690                  |
| ò                  | 601 AT          | ATCCACCCCCAGGTCAAACGAGCAGCAAGGCACTAGAACAAGTTGCGACAGGCA 660                       |
| QQ                 | 691 AT          | TCCACCGCCAGGTCAAACGAGCAGCACGAGCATGGAACAAATACAAGTTGCGACAGGCA 750                  |
| ò                  | 661 AC          | AGCATCCACTCCAACCAIGTGGCCAGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 720                  |
| qq                 | 751 AC          | SCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTTTTCCAGGAG 810                    |
| δ                  | 721 CJ          | CTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGATTTCATCTGAGCCAGTCAGT                      |
| qq                 | 811 C           |                                                                                  |
|                    |                 |                                                                                  |

à

| ò              | 841 A                                   | AGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 900                                                                                                                                                                         |
|----------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| අ              | 931 A                                   |                                                                                                                                                                                                                                         |
| ò              | 901 A                                   | TTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG 960                                                                                                                                                                        |
| 요              | 991 A                                   |                                                                                                                                                                                                                                         |
| ò              | 961 T                                   | 1020                                                                                                                                                                                                                                    |
| q <sub>Q</sub> | 1051 T                                  | dririechdretrechtrachridecendaderacecetrerrachecracarr 1110                                                                                                                                                                             |
| λŏ             | 1021 C                                  | CIGGALGCCAGAGTCCAGGCTCCCCGGGTGGTCCAACTGCTTGCTGCCAACTCACCTGG 1080                                                                                                                                                                        |
| qu             | 1111 C                                  | 166A16ccA6AGTCCA6GCTCCCGGGTCGTCCACATGCTTGCTGCCAACCTCACCTGG 1170                                                                                                                                                                         |
| λŏ             | 1081                                    | CTCAATGGTTGCATCAACCCTGTGCTGTATGCAGCCATGAACCGCCAATTCCGCCAAGGA 1140                                                                                                                                                                       |
| qq             | 1171 C                                  | TCAATGGTTGCATCAACCCTGTGTTTTTTTGCAGCCATGAACCGCCAATTCCGCCAAGCA 1230                                                                                                                                                                       |
| <i>\</i> 0     | 1141 TA                                 | AIGGCICCAITITAAAAAGAGGCCCCGGAGTITCCAIAGGCICCAIIAG 1191                                                                                                                                                                                  |
| qc             | 1231 T                                  | ATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTT                                                                                                                                                                                                      |
| RES            | RESULT 8 AAI99548                       |                                                                                                                                                                                                                                         |
| AX A           | 9 4 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | כמווממומי כחווסי זיין מ                                                                                                                                                                                                                 |
| ×              |                                         |                                                                                                                                                                                                                                         |
| TQ.            | 04-JAN-200                              | <pre>2 (first entry)</pre>                                                                                                                                                                                                              |
| (日)            | Human expr                              | expressed polynucleotide SEQ ID NO 11.                                                                                                                                                                                                  |
| ¥              | Treating.                               | קייייייי                                                                                                                                                                                                                                |
| X X X          | Human; noo<br>immunosupp<br>antiparkin  | <pre>Human; nootropic; neuroprotective; cycostatic; defmatclogical; virucide;<br/>immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary;<br/>antiparkhosnian; antisickling; antianaemic; antiarthritic; cancer;</pre> |
| ¥ 3            | antiallera                              | tio: antidiabetic: antiulcer: anticonvulsant; antifungal;                                                                                                                                                                               |
| <u> </u>       | antiparasi                              | u n                                                                                                                                                                                                                                     |
| ×S             | Homo sapien                             | · ·                                                                                                                                                                                                                                     |
| X              | 4                                       |                                                                                                                                                                                                                                         |
| N X            | WO200155387                             | 7-A1.                                                                                                                                                                                                                                   |
| E 3            | 02-AUG-2001                             |                                                                                                                                                                                                                                         |
| F.             | 17-JAN-2001                             | 1, 2001WO-US001310.                                                                                                                                                                                                                     |
| X E            |                                         | 2000 t to - 2110000                                                                                                                                                                                                                     |
| Z Z            |                                         | 2000US-017906<br>2000US-018062                                                                                                                                                                                                          |
| PR E           |                                         | 2000US-018466                                                                                                                                                                                                                           |
| ¥ ¤            | 16-MAR-2000;                            | 0; Z000US-01888350F;<br>0; Z000US-0189874P.                                                                                                                                                                                             |
| 4. t           |                                         | 2000US-019007                                                                                                                                                                                                                           |
| 7. F.          |                                         | 2000US-019812                                                                                                                                                                                                                           |
| PR I           |                                         | 2000US-020946                                                                                                                                                                                                                           |
| 7 Y            |                                         | 2000US-02148B                                                                                                                                                                                                                           |
| 쫎              |                                         | 2000US-021664                                                                                                                                                                                                                           |
| PR             |                                         | 2000US-021748                                                                                                                                                                                                                           |
| የ የ            |                                         | 2000US-021749                                                                                                                                                                                                                           |
| A A            |                                         | 2000US-022096                                                                                                                                                                                                                           |
| 7 L            |                                         | 2000US-022451                                                                                                                                                                                                                           |
|                |                                         | 2000US-022451                                                                                                                                                                                                                           |
| PR             |                                         | 2000US-022521                                                                                                                                                                                                                           |
|                |                                         |                                                                                                                                                                                                                                         |

```
08-SEP-2000; 2000US-0231244P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-0231414P.
08-SEP-2000; 2000US-023208P.
12-SEP-2000; 2000US-023239P.
14-SEP-2000; 2000US-023364P.
14-SEP-2000; 2000US-023364P.
14-SEP-2000; 2000US-023364P.
15-SEP-2000; 2000US-023364P.
15-SEP-2000; 2000US-023499P.
15-SEP-2000
 2000US - 02255447P

2000US - 0225757P

2000US - 0225757P

2000US - 022573P

2000US - 022648P

2000US - 022688BP

2000US - 0228897P

2000US - 0229343P

2000US-0255266P.
2000US-0255267P.
2000US-0255268P.
2000US-0255270P.
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
22-AUG-2000; 2
22-AUG-2000; 2
22-AUG-2000; 2
23-AUG-2000; 2
30-AUG-2000; 2
30-AUG-2000; 2
310-AUG-2000; 2
 08-NOV-2000;
 08-NOV-2000;
 01-SEP-2000;
```

08-NOV-2000; 2000US-0246525P.
08-NOV-2000; 2000US-0246526P.
08-NOV-2000; 2000US-0246528P.
08-NOV-2000; 2000US-0246528P.
08-NOV-2000; 2000US-0246532P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-0249209P.
17-NOV-2000; 2000US-0249209P.
17-NOV-2000; 2000US-0249210P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-024921P.
17-NOV-2000; 2000US-024921P.
17-NOV-2000; 2000US-024921P.
17-NOV-2000; 2000US-024921P.
17-NOV-2000; 2000US-024921P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-024926P.
2000US-0251479P. 2000US-0251856P. 2000US-0251868P. (HUMA-) HUMAN GENOME SCI INC 01-DEC-2000; 2 05-DEC-2000; 2 05-DEC-2000; 2 05-DEC-2000; 2 06-DEC-2000; 2 05-JAN-2001; 11-DEC 

Ruben SM Rosen CA, Barash SC,

WPI; 2001-465573/50. P-PSDB; AAM99936.

Isolated digestive system associated polypeptide for treating, preventing and/or prognosing disorders related to the digestive system including digestive system cancers and also for testing and detection e.g. diagnosis.

Claim 1; SEQ ID NO 11; 509pp + Sequence Listing; English.

The invention relates to novel genes (AA199548-AA199604) and proteins (AAM99936-AAM99984) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the adagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer and other cancers of the adrenal gland, bone, bone marrow, breast gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune haemolytic anaemia, autoimmune thyrodidits, dabates mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colifis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) infections diseases such as viral, bacterial, fungal and parasitic infections. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from MIPO at ftp. Wipo.int/pub/published\_pot\_sequences

```
The present nucleic acid sequence represents cDNA encoding EX33, a human inflammatory disease-related G-protein coupled receptors (GPCR). G-protein coupled receptors (GPCR). G-protein coupled receptors are important targets in therapeutic applications because they are involved in a wide variety of physiological and pathological processes. The invention comprises the use of the EX33 polyapeptide and polynucleotide in the diagnosis or treatment of a neutrophil-associated inflammatory disease. The EX33 polyapeptide, and antibody specific to the EX33 polyapeptide, an antibody specific to the EX33 polyapeptide, and an antibody specific to the EX33 polyapeptide, and an associated with a second of the EX33 polyapeptide, and an associated second in the diagnosis or treatment of neutrophilapoly, adult respiratory disteases syndrome (ARDS), rheumatoid arthritis, and inflammatory bowel diseases (e.g., Crohn's disease and
 WO200166597-A2
 sapiens
 13-SEP-2001
1072
 1132
 1141
 1192
 1252
 1081
 1021
 AAH78712
 Jarai G,
 e.g.
 Ношо
 RESULT 9
 AAH78712
 à
 g
 à
 ਰ. ਨ
 d
 1020
 ô
 1011
 1071
 120
 480
 540
 960
 231
 180
 240
 300
 360
 600
 099
 720
 780
 840
 900
 171
 291
 351
 411
 471
 420
 531
 591
 651
 711
 771
 831
 891
 951
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 CTCATTGCCCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTGTTTCCAGGAG
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAAAAGG
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAAGCATCTGCCAAAGCCCAGCCA
 TGTTTTGCTGTGTTCCTCTGCCTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 1 ATGIGGAACAGCICTGACGCCAACTICTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGCACCGTGGGCAATGTGCTC
 TATGTTGCAGTTAGCTGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 Accetactedecerrescearceascecaascrestracesarreaaccrestratasee
 AACCTCACACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 TACCTCCACCTGCACTGCCCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 cregracereracrecacerecaecrireaececareceaececeecerracaecae
 ATCCTCATGGGCATCTACTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCTCATGGGCATCTACTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 Arccacceccaegrcaaaceaecaecaecaecaecaecaaracaagrreceaeaea
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 841 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 901 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 TACCTCCACCTGCACTGCCGCTGCCACCTTCTGCAGGGTATTTGGGCTTCCTCTT
 GCTGCCACCACCCAGCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 Gaps
 ÷
 DB 4; Length 1579;
 BP; 356 A; 460 C; 381 G; 379 T; 0 U; 3 Other;
 0; Indels
 100.0%; Score 1191; 100.0%; Pred. No. 0;
 0; Mismatches
 ilarity 100.0%;
Conservative
 Similarity
 Sequence 1579
 Best Local Simi
Matches 1191;
 61
 172
 121
 232
 181
 241
 352
 412
 361
 472
 421
 532
 481
 592
 541
 652
 601
 712
 199
 772
 721
 832
 781
 892
 952
 1012
 292
 301
 961
 Query Match
 XX OS
 g
 g
 ò
 D.
 8
 임
 ò
 В
 8
 В
 ò
 Db
 à
 g
 g
 g
 ò
 g
 ठ
 à
 à
 Š
 g
 à
 g
 à
 g
 ò
 d
 à
 셤
```

```
1080
 1140
 1191
 1251
TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1131
 Use of an inflammatory related G-protein coupled receptor (EX33), a polynucleotide encoding it or other compounds (e.g. antibodies) in the diagnosis or treatment of a neutrophil-associated inflammatory disease,
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 crecareccaearccaeacrecceearearccaearecreccaeacrecaearecres
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 TATGGCTCCATTTTAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1302
 G-protein coupled receptor; EX33; rheumatoid arthritis; neutrophil-associated inflammatory disease; Crohn's disease; ulcerative colitis; chronic obstructive pulmonary disease; COPD; adult respiratory distress syndrome; ARDS; rheumatoid arthritis; inflammatory bowel disease; human; GPCR; ss.
 Human EX33 G-protein coupled receptor cDNA sequence.
 (NOVS) NOVARTIS AG.
(NOVS) NOVARTIS-ERFINDUNGEN VERW GES MBH.
 /product= "EX33 protein"
 Location/Qualifiers
140. .1330
 ВР
 Yousefi S;
 Claim 3; Page 29; 32pp; English.
 AAH78712 standard; cDNA; 1595
 06-MAR-2000; 2000US-00518832.
 05-MAR-2001; 2001WO-EP002462
 29-JAN-2002 (first entry)
 rheumatoid arthritis.
 Cooper PR,
 WPI; 2001-541917/60.
```

SXS

셤 ò 엄  $\dot{\circ}$ qq ò 셤  $\delta$ g  $\dot{\delta}$ 음 ò 염 ò g ò g ò 임 à

```
1159
 Human; uterine motility-association disorder; uterus; pregnancy; labour; menstrual cycle; gene therapy; ds.
CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 Genomic sequence #2 encoding novel human uterine motility polypeptide.
 TATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 CIGGAIGCCAGAGICCAGGCICCCCGGGIGGICCACAIGCI
 02-MAR-2000; 2000US-0186350P.
16-MAR-2000; 2000US-0189874P.
17-MAR-2000; 2000US-0189874P.
19-MAY-2000; 2000US-0198123P.
19-MAY-2000; 2000US-0198123P.
28-JUN-2000; 2000US-021486P.
28-JUN-2000; 2000US-021486P.
30-JUN-2000; 2000US-021486P.
11-JUL-2000; 2000US-021686P.
11-JUL-2000; 2000US-021686P.
11-JUL-2000; 2000US-021686P.
11-JUL-2000; 2000US-021686P.
11-JUL-2000; 2000US-021686P.
11-JUL-2000; 2000US-021813P.
11-JUL-2000; 2000US-021819P.
11-JUL-2000; 2000US-0228964P.
14-AUG-2000; 2000US-0228964P.
14-AUG-2000; 2000US-0228964P.
14-AUG-2000; 2000US-0228966P.
14-AUG-2000; 2000US-0228966P.
14-AUG-2000; 2000US-022886P.
14-AUG-2000; 2000US-022886P.
 2000US-0225270P.
2000US-0225447P.
2000US-0225757P.
2000US-0225758P.
2000US-0225759P.
 AAS28996 standard; DNA; 2046
 2000US-0226681P
 17-JAN-2001; 2001WO-US001317
 (first entry)
 WO200155201-A1.
 14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
18-AUG-2000; 2
22-AUG-2000; 2
 22-AUG-2000; 23-AUG-2000; 2
 Homo sapiens
 21-NOV-2001
 02-AUG-2001
 1100
 1160
 1081
 1220
 1141
 1280
 AAS28996;
 1021
 10
 AASSULT 10

AASS 8996

 · &
 8 & 8
8
 ò
 d
 AAGAGGGCTAAGCAGATGGCAGAGAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 1039
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1020
 259
 180
 319
 240
 300
 439
 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC 360
 499
 420
 559
 480
 619
 540
 619
 600
 739
 99
 740 ATCCACCGCCAGGTCAAACGAGCAGGCACTGGACCAATACAAGTTGGGCA 799
 720
 919
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAAGACCAGATCAACAGC 840
 AAGAGGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAAGCCCAGGCA 900
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 960
 ATGEGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 199
 TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 120
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 379
 9
 380 TACCTCCACTGCACTGGCGCACCGGTGCCACCTTCTGCAGGTATTTGGGCTCCTCCTT
 560 CIGGIGAGCACCIGGGITGIGGGCAGGCCAGCIITGCICCCCCCCTCIGGCCATITATAIC
 680 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 200 TAIGTIGCAGTTAGCTGGGGGGTGGTGGTGACAGGCACCGTGGGCAATGTGCTC
 TACCTCCACCTGCACTGCCGCTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 440 TITGCCICCAAITCIGICICCAICCAGACCCICGCCICAICGAGACGCIACCIC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGCGTGGCCTTTGCTCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 601 ATCCACCGCCAGGTCAAACGAGCAGCACGACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 1 ATGIGGAACAGCICTGACGCCAACTICCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 AACCTCACACTGGCTGATCTCCTCTTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 Gaps
 .
0
 DB 4; Length 1595;
 T; 0 U; 0 Other;
 0; Indels
 Ouery Match
100.0%; Score 1191;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1191; Conservative 0; Mismatches
 Sequence 1595 BP; 393 A; 459 C; 365 G; 378
 ulcerative colitis)
 086
 800
 860
 841
 1040
 196
 781
 920
 260
 320
 500
 541
 199
 721
 901
 61
 181
 241
 301
 361
 421
 481
```

g

8 8

ò

d

d

90 AG

```
2000US-0229509P
2000US-0229509P
2000US-0230431P
2000US-02304348P
2000US-0231243P
2000US-0231243P
2000US-0231243P
 2000US-0236327P.
2000US-0236367P.
 2000US-0236368P.
2000US-0236369P.
2000US-0236370P.
 2000US-0239937P
2000US-0240960P
 2000US-0241808P
 08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 17-NOV-2000;
17-NOV-2000;
```

```
The present invention relates to the isolation of novel human uterine motility-association polypeptides (AAU18094-AAU18152), and cDNA and genomic sequences encoding for these polypeptides. The sequences of the invention are useful in the diagnosis, treatment, prevention and/or prognosis of diseases associated with uterine motility such as pregnancy and labour, and menstrual disorders. The polymorlectide sequences of the invention are also useful in gene therapy. AAS28995-AAS29020 represent genomic sequences encoding for novel human uterine motility-association polypeptides. Note: The sequence data for this patent did not form part dit by printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
 New nucleic acid molecules encoding 49 human secreted proteins for diagnosing, preventing, treating or ameliorating medical conditions and used as food additives or preservatives.
 1 ATGIGGAACAGCICTGACGCCAACTICCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 637 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGGCTATCGT
 61 TATGITGCAGITAGCIGGGGGGGGGGGGGCIGTGACAGGCACCGIGGGCAAIGIGCIC
 ·.
 100.0%; Score 1191; DB 4; Length 2046; 100.0%; Pred. No. 0; Aismatches 0; Indels 0;
 Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;
 Disclosure; SEQ ID NO 130; 524pp; English.
 Rosen CA, Barash SC, Ruben SM;
 2000US-0249215P
2000US-0249210P
2000US-0249210P
2000US-0249244P
2000US-0249245P
2000US-0249245P
2000US-024926P
2000US-0249297P
2000US-0249297P
2000US-0249390P
 2000US-0251988P.
2000US-0256719P.
2000US-0251479P.
 2000US-0250160P.
2000US-0250391P.
2000US-0251030P.
 (HUMA-) HUMAN GENOME SCI INC
 Query Match
Best Local Similarity 100.(
Matches 1191; Conservative
 WPI; 2001-488777/53
 17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
 17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
 17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
 05-JAN-2001;
g
 8
```

181 AACCTCACACACGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 240

AACCTCACACTGACTCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC

817

TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC

697

a ò 엄

121 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 

969

9

Gaps

```
Human; antiinflammatory; neuroprotective; immunomodulator; vulnerary; cardiovascular; cytostatic; nephrotropic; antianaemic; nephritis; immunosuppressive; kidney disorder; renal failure; hypertension; cardiovascular disorder; myocardial infarction; blood disorder; anaemia; hyponatraemia; hyperataemia; neoplastic disorder; nephromat, hyperataemia; neoplastic disorder; nephroma, autoimmune disease; inflammatory disease; reproductive system disorder; endocrine disorder; neural activity; neurological disorder; wound healing; respiratory disorder; ss.
 cardiovascular-associated protein, Seq ID 155.
 2000US-0179065P.
2000US-0180628P.
2000US-0184624P.
2000US-018954P.
2000US-0199874P.
2000US-0190076P.
 17-JAN-2001; 2001WO-US001359
 encoding renal and
 WO200155328-A2
 08-SEP-2000; 2
08-SEP-2000; 2
12-SEP-2000; 2
 Homo sapiens
 12-AUG-2001
1116
 1176
 1296
 1356
 1596
 1020
 1656
 1080
 1716
 1140
 1776
 1056
 Arccicaridaciarcia de interacerida de contración de contra
 360
 966
 420
 480
 540
 600
 9
 720
 780
 840
 900
 960
 936
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CIGGIACCIGIAGICITACACCIGCAGCITIGACCGCAGCCGAGGCCGGCCITACACCACC
 AGCATCCACTCCAACCATGTGGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGAATTTGGGAAGGTGACTCGAATG
 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 credacaecaecriraccarcaegaecacccaercaececearricarcredaeccaercaer
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCCTTGTTGCTGCTCAACATT
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 1081 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 TACCTCCACCTGCACTGGCGCACCGTGCCACCTTCTGCAGGTATTTGGGCTCCTCTT
 CIGGIGACCACCIGGGITGIGGGCGTGGCCCAGCITTGCTCCCCCTCTGGCCTAITTAIATC
 ATCCACCCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 TACCTCCACCTGCACTGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGGCTCCTCTT
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 AAS30237 standard; DNA; 2046
 entry)
 (first
 21-NOV-2001
 1657
 1537
 1597
 1717
 1057
 1117
 1177
 1237
 1297
 1357
 1477
 901
 961
 1021
 1141
 1777
 241
 877
 301
 937
 361
 997
 421
 541
 661
 721
 781
 841
 AAS30237
 481
 601
 RESULT 11
AAS30237
ID AAS30
XX
AC AAS30
XX
DT 21-NO
 8
 g
 8 8
 à
 g
 \ddot{\circ}
 ΩÞ
 ò
 셤
 \delta
 a
 à
 원
 δ
 2
 \delta
 a
 상
임
 क विक
 g
 ò
 셤
 \stackrel{\circ}{\sigma}
 g
 ò
```

```
2000US-0250391P
 29-SEP-2000;
29-SEP-2000;
29-SEP-2000;
 08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 26-SEP-2000;
27-SEP-2000;
 01-DEC-2000;
 08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
 08-NOV-2000;
 29-SEP-2000
 02-OCT-2000
02-OCT-2000
 02-OCT-2000
02-OCT-2000
 08-NOV-2000
 7-NOV-2000
 7-NOV-2
```

```
The invention relates to novel nucleic acids and polypeptides useful for diagnosing, treating, preventing and/or prognosing disorders related to these polypeptides. The polynuclectides are especially useful in the diagnosis, prognosis, prevention and/or treatment of diseases which include kidney disorders (e.g. renal failure or nephritis), cardiovascular disorders (e.g. hypertenaion or myocardial infarction), electrolyte imbalance disorders (e.g. hyponatraemia or hoperkalaemia), electrolyte imbalance disorders (e.g. hyponatraemia or hyperkalaemia), electrolyte imbalance disorders (e.g. hyponatraemia or hyperkalaemia), encoplastic disorders (e.g. nephtoma or renal cell cancer), autoimmune disorders, neural activity and neurological disorders, wound healing and respiratory disorders. AAS30165-AAS30251 represent the novel human renal and cardiovascular-associated nucleic acid sequences of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at: ftp.wipo.int/pub/published_pct_sequences
 New polynucleotides and polypeptides, useful for diagnosing, treating, preventing or prognosing e.g. kidney, cardiovascular, blood, electrolyte imbalance or neoplastic disorders, autoimmune diseases, cancers.
 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 TATGITIGCAGTTAGCTGGGGGGGGGGGGGGGCTGTGACAGGCACCGTGGCAATGTGCTC
 121 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 Acceracioscerioscearceaseceaasereceracesariteaacerecionidadee
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT
 AACCTCACACTGGCTGATCTCCTCTTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGTGGACACC
 Gaps
 .
0
 Length 2046;
 Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;
 Indels
 DB 4;
 ö
 100.0%; Score 1191;
100.0%; Pred. No. 0;
live 0; Mismatches
 Claim 1; SEQ ID NO 155; 506pp; English.
 Ruben SM
05-DEC-2000; 2000US-0251030P.
05-DEC-2000; 2000US-025198BP.
06-DEC-2000; 2000US-0255479P.
08-DEC-2000; 2000US-0251856P.
08-DEC-2000; 2000US-0251868P.
08-DEC-2000; 2000US-0251868P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-025199P.
08-DEC-2000; 2000US-025199P.
08-DEC-2000; 2000US-025199P.
08-DEC-2000; 2000US-025199P.
 (HUMA-) HUMAN GENOME SCI INC.
 Conservative
 Rosen CA, Barash SC,
 WPI; 2001-488787/53
 Query Match
Best Local Similarity
Matches 1191; Conserv
 61
 181
 817
 697
 757
 241
 877
 ð
 엄
 ଟ
 8
 9
 D.
 g
 임
 8
 8
```

756 180 240 876 300 936 360

420

TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC

301 937 361

ò

유

CTCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA

421

δ g ò g ö ద ò g  $\dot{\delta}$ g ò g δ DP  $\stackrel{\circ}{\circ}$ g  $\delta$ БЪ ò g ò g ò Db ò a

997

1117 541 1177

481

1237

601

1297

661

1357

721

1417

781

1477

841

1537

901

196

1597

1657 1081 1717 1141 1777

AAS35064;

Ното

1021

```
2000005 02271829
2000005 02271829
2000005 02292879
2000005 02293879
2000005 02293489
2000005 02293489
 2000US-02320B1P
2000US-02320B1P
2000US-023196BP
2000US-0232397P
2000US-0232398P
 2000US-0232399P:
2000US-0232400P.
2000US-0232401P.
2000US-0233063P.
2000US-0233064P.
 2000US-0190076P.
2000US-0198123P.
2000US-0205515P.
 2000US-0209467P.
2000US-0214886P.
2000US-0215135P.
 2000US-0225270P.
2000US-0225447P.
2000US-0225757P.
 2000US-0224519P.
2000US-0225213P.
2000US-0225214P.
 2000US-0220963P.
2000US-0220964P.
2000US-0224518P.
 2000US-0225266P.
2000US-0225267P.
2000US-0225268P.
 2000US-0229513P
2000US-0230437P
 2000US-0225758P
 2000US-0226681P
 2000US-0231242P
 17-JAN-2001; 2001WO-US001358
 2000US-0189874P
 2000US-0216880P
 WO200155163-A1
 26-JUL-2000;
26-JUL-2000;
14-ANG-2000;
14-ANG-2000;
14-ANG-2000;
14-ANG-2000;
14-ANG-2000;
14-ANG-2000;
 14-SEP-2000; 21-SEP-2000; 21-SEP-2000; 2
 14-AUG-2000;
18-AUG-2000;
22-AUG-2000;
 30-AUG-2000;
01-SEP-2000;
01-SEP-2000;
 14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
 22-AUG-2000;
22-AUG-2000;
 14-AUG-2000;
 23-AUG-2000;
 1176
 1236
 1476
 1020
 1656
 1080
 1716
 ATTAAAGGAGCCAGAAGGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1596
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA 1296
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 1356
 1416
 AAGAGGGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 1536
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1776
CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 1056
 540
 600
 960
 720
 780
 840
 900
 960
 Human; neoplastic disease associated polypeptide, cancer, gene therapy, hyperproliferative disorder; neural disorder; immune system disorder; macular disorder, reproductive disorder; gastrointestinal disorder; pulmonary disorder; cardiovascular disorder; renal disorder; neuroprotective; cytostatic; anti inflammatory; vasotropic; ds.
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 credareccadacrecadecreecedesrecatearecreereccadecreecracered
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 1GTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1827
 TATGGCTCCATTTTAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 DNA #14 encoding human neoplastic disease associated polypeptide
 AAS35064 standard; DNA; 2046
 (first entry)
 sapiens
 04-DEC-2001
```

```
2000US - 0249218P

2000US - 0249244P

2000US - 0249264P

2000US - 0249265P

2000US - 0249267P

2000US - 024920P

2000US - 024920P

2000US - 024920P

2000US - 024920P

2000US - 0250391P

 2000US - 0237038P
2000US - 0237039P
2000US - 0239935P
2000US - 0239937P
2000US - 0241221P
2000US - 0241221P
2000US - 0241786P
2000US - 0241786P
2000US - 0241786P
 2000US-0249209P.
2000US-0249210P.
2000US-0249211P.
2000US-0249212P.
2000US-0249213P.
2000US-0249213P.
 2000US-0249215P.
2000US-0249216P.
2000US-0249217P.
 (HUMA-) HUMAN GENOME SCI INC.
 2000US-0244617P.
2000US-0246474P.
2000US-0246475P.
 2000US-0249207P
 2000US-0246478P
 25-569-2000;
02-077-2000;
02-077-2000;
02-077-2000;
02-077-2000;
13-077-2000;
13-077-2000;
13-077-2000;
02-077-2000;
02-077-2000;
02-077-2000;
03-077-2000;
03-077-2000;
04-077-2000;
04-077-2000;
06-077-2000;
06-077-2000;
06-077-2000;
06-077-2000;
06-077-2000;
06-077-2000;
06-077-2000;
06-077-2000;
 7-NOV-2000;
 05-JAN-2001;
 08-NOV-2000
```

The present invention relates to the isolation of novel human neoplastic disease associated polypeptides (AAU21568-AAU21851), and CDNA and DNA sequences encoding for these polypeptides. The sequences of the invention are useful in the diagnosis, treatment, prevention and/or prognosis of disorders involving neoplastic disease such as hyperproliferative disorders (e.g. leukaemia, bone cancer, bladder cancer, brain stem glioma, adult liver cancer, childhood cerebellar astrocytoma, or Hodgkin's lymphoma). The sequences of the invention may also be useful for treating other disorders, such as neural disorders, immune system disorders, muscular disorders, cardiovascular disorders, gastrointestual disorders, pulmonary disorders, cardiovascular disorders and renal disorders. The polymucleotide sequences of the invention are also useful in gene therapy. AAS30051-AAS30155 represent DNA sequences encoding for the novel human neoplastic disease associated polymeptides of the cinvention. Note: The sequence data for this patent did not form part of invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/bublished\_pot\_sequences 1056 1116 480 540 360 420 969 120 240 876 300 936 966 756 180 816 Novel polypeptides and polynucleotides useful as diagnostic reagents to diagnose diseases or disorders associated with aberrant expression or activity of polypeptides, and for treating cancers, rheumatoid arthritis. 1057 CIGGIGAGCACCIGGGIIGIGGGCGIGGCCACTITGCICCCCCTCIGGCCTAITTAIAIC 817 AACCTCACACAGGGGGTGATCTCCTCTACTGCAGGCTCCTTCAGCCCTTCTGTGGACACC TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGGCTCCTCCTT 301 ITTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC creameceaccenalectriticeceaactricaereceaagganageera checracergraererecaecrecaecrrreaceecareceaeceeceecerracaeceec 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGCACCGTGGGCAATGTGCTC 121 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC Acceracidecerroecearceaeceaaecreceraeceearreaacerecrearaece 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTGCCAAGGGGATAGTGCTGGCA CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC Gaps ô Length 2046; Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other; Indels DB 4; .; 0 100.0%; Score 1191; 100.0%; Pred. No. 0; ative 0; Mismatches Disclosure, SEQ ID NO 592; 687pp; English Query Match
Best Local Similarity 100.
Matches 1191; Conservative WPI; 2001-465558/50 61 757 241 937 361 997 481 1117 421 d d 셤 셤 ð g  $\stackrel{>}{\circ}$ q à 원. 강 d ò à g ò ò ò

1236

1177

Ruben SM;

Barash SC,

Rosen CA,

```
11. ULL 2000; 2000US -0217496P.
14. ULL 2000; 2000US -0217496P.
14. AUG -2000; 2000US -0227964P.
14. AUG -2000; 2000US -0226964P.
14. AUG -2000; 2000US -0226964P.
14. AUG -2000; 2000US -0226964P.
14. AUG -2000; 2000US -0225214P.
15. AUG -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0225314P.
16. SEP -2000; 2000US -0235314P.
17
 1356
 1416
 1476
 1596
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCCACATT 1020
 1080
 1140
 1776
 1716
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 1536
 720
 780
 840
 900
 960
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 ATTAAAGGAGCCAGAAGACTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAAGCCATCTGCCAAAGCCCAGCCA
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 Human, immune, haematopoietic, immune/haematopoietic antigen, cancer, cytostatic, gene therapy, vaccine, metastasis, ds.
 Human immune/haematopoietic antigen genomic sequence SEQ ID NO:32393
 TATGGCTCCATTTTAAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 31-JAN-2000, 2000US-0179065P.
24-FEB-2000, 2000US-018664P.
02-MAR-2000, 2000US-0186550P.
15-MAR-2000, 2000US-0186350P.
17-MAR-2000, 2000US-0190076P.
18-APR-2000, 2000US-0190076P.
19-APR-2000, 2000US-0190076P.
19-MAY-2000, 2000US-0190076P.
07-JUN-2000, 2000US-025551SP.
07-JUN-2000, 2000US-0214866P.
 AAK77581 standard; DNA; 2046
 17-JAN-2001, 2001WO-US001354
 2000US-0215135P
 (first entry)
 WO200157182-A2
 07-NOV-2001
 30-JUN-2000;
 Homo sapiens
 09-AUG-2001
 1297
 1357
 1417
 1477
 1537
 1597
 1657
 1717
 661
 721
 781
 841
 1021
 1081
 1141
 1777
 901
 961
 AAK77581
 RESULT 13
 원
 8
 \overset{\circ}{\delta}
 셤
 8 8
 ò
 엄
 δ
 g
 \delta
 g
 g
 g
 \delta
 ò
 à
```

1.74

1.34

```
AAKS4951 to AAK64702 encode the human immune/haematopoietic antigen (I) amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased example, they may be used to treat disorders associated with series that affect the activity of (I) by expressing inactive proteins or to supplement the patients own production of (I). Additionally, (I)
 Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
 Disclosure; SEQ ID NO 32393; 3071pp + Sequence Listing; English.
 2000US - 0241809P

2000US - 0241826P

2000US - 0246474P

2000US - 0246477P

2000US - 0246523P

2000US - 0246611P

2000US - 024621P

2000US - 0249211P

 2000US-0249299P
 (HUMA-) HUMAN GENOME SCI INC
 Barash SC,
 WPI; 2001-483426/52
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0CT-2000;
20-0C
 17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
 17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
01-DEC-2000;
 17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
 7-NOV-2000;
 7-NOV-2000;
 11-DEC-2000;
 08-DEC-2000
 Rosen CA,
```

```
1417 derecenecacecadacecredandedecerentenenadaderegadedadarenenada 1476
 1116
 1176
 1236
 1296
 1416
 ô
 CICATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 1056
 780
 900
 480
 600
 720
 300
 360
 420
 969
 180
 876
 936
 966
polynucleotides may be used to produce the secreted (1), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (1) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic educived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK5492 to AAK54950 and AAM82169 represent sequences used in the exemplification of the present invention
 09
 841 AAGAGAGTTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 1297 Agcarccacrccaaccargragccaggacrgargaggccargccrggrcgrrrrcaggag
 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
 TITGCCTCCAATTCTGTCTCCATCCTGACCTTCTGCCTCATCGCACTGGGACGCTACCTC
 TITGCCICCAATICIGICICCATCCIGACCCTCIGCCCCACGCACIGGGACGCIACCTC
 checheaccacchechneheaccaccacchritechececenenearunanane
 CTEGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCCGGGCCTTACACCACC
 541 ATCCICATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 601 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 781 GCTGCCACCACCCAGACCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 1 AIGIGGAACAGCICIGACGCCAACTICTCCTGCTACCAIGAGICTGTGCTGGGCTATCGT
 TATGITGCAGITAGCTGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGGATTCAACCTGCTCATAGCC
 CTGGTGAGCACCTGGGTTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTATATC
 TACCTCCACCTGCACTGGCGCACCGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
 CTCATTGCCCAACCCTAAGCTTTTCCCCCAAGTTTTCAGTGCCAAGGGGGATAGTGCTGGCA
 Gaps
 ö
 Length 2046;
 Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;
 Indels
 DB 4;
 .,
 Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1191; Conservative 0; Mismatches
 1057
 1117
 1237
 1357
 61
 121
 199
 697
 757
 241
 877
 301
 937
 361
 997
 421
 481
 721
 88888888888888
 g
 g
 g
 à
 음
 ò
 유
 ò
 g
 \delta
 d
 ò
 g
 요.
 . . යු
 \stackrel{>}{\circ}
 ò
 g
 ਨੇ
 임
 à
 .₽
 ò
 g
 à
 6
 셤
 ò
```

```
14-AUG-2000; 2000US-0225758P.
14-AUG-2000; 2000US-0225758P.
18-AUG-2000; 2000US-0225758P.
18-AUG-2000; 2000US-0225758P.
18-AUG-2000; 2000US-022678P.
22-AUG-2000; 2000US-022678P.
22-AUG-2000; 2000US-022678P.
22-AUG-2000; 2000US-022289P.
23-AUG-2000; 2000US-022289P.
23-AUG-2000; 2000US-022289P.
24-AUG-2000; 2000US-02289P.
25-AUG-2000; 2000US-02289P.
25-AUG-2000; 2000US-02289P.
25-AUG-2000; 2000US-02289P.
25-AUG-2000; 2000US-02289P.
26-AUG-2000; 200
 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1020
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140
 crcaariderrecarcaccerdrecrerarecaccardaacceccaarrececcaacca 1776
 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 1536
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 Human; gene therapy; neural disorder; immune system disorder; muscular disorder; reproductive disorder; gastrointestinal disorder; pulmonary disorder; cardiovascular disorder; renal disorder; proliferative disorder; inflammation; ds.
 TATGGCTCCATTTTAAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 Human genomic DNA SEQ ID NO: 875.
 2000US - 0186350P

2000US - 0189874P

2000US - 0199123P

2000US - 0198123P

2000US - 0205513P

2000US - 021513P

2000US - 0214886P

2000US - 021513SP

2000US - 0217487P

2000US - 0220963P

2000US - 0220963P

2000US - 0220963P

2000US - 0220963P

2000US - 02205213P

2000US - 0225213P
 2000US-0225266P
2000US-0225267P.
2000US-0225268P.
2000US-0225270P.
2000US-0225447P.
 2000US-0180628P.
 ABA06789 standard; DNA; 2046
 17-JAN-2001; 2001WO-US001349
 WO200154474-A2
 07-JUL-2000; 2
11-JUL-2000; 2
14-JUL-2000; 2
26-JUL-2000; 2
6-JUL-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
14-AUG-2000; 2
 02-MAR-2000;
16-MAR-2000;
17-MAR-2000;
 Homo sapiens
 10-JAN-2002
 02-AUG-2001
 1597
 1657
 1537
 1021
 1081
 1717
 1141
 1777
 901
 196
 ABA06789;
 g
 셤
 ò
 g
 ò
 음
 8
 ò
```

```
1476
 1716
 1056
 1116
 1176
 1236
 1356
 1416
 1536
 1596
 1020
 1656
 1080
 1776
 1296
 900
 960
 540
 099
 840
 420
 480
 009
 720
 780
 876
 936
 360
 966
 CTGGTGAGCACCTGGGTTGTGTGTGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTAAATC
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 AAGAGGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 ATTAAAGGAGCCAGAAGGCCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 TETITIGET CTGTTCTCTGTTTGCCCTGACTACATCCCCTTCTTGCTGCTCACATT
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 CTCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCTCATCGCACTGGGACGCTACCTC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTCAGTGCCAAGGGGATAGTGCTGGCA
 CTGGTGAGCACCTGGGGTTGTGGGGGGGGGCGTTTGCTCCCCCTCTGGGCCTATTTATATC
 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCGGTATTTGGGCTCCTCTT
 TATGGCTCCATTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 standard; DNA;
 1597
 937
 1057
 1177
 1237
 1417
 1141
 481
 1117
 1297
 1357
 1477
 901
 1537
 1021
 1657
 1081
 1717
 241
 877
 301
 361
 997
 421
 601
 661
 721
 781
 841
 961
 ABK44021
 RESULT 15
 ABK44021
ID ABK4
XX
 q
 pp
 g
 à
 q
 셤
 8
 엄
 ઠે
 ò
 à
 D.
 8
 6 원
 g
 8
 g
 8
 ò
 g
 \dot{\circ}
 ò
 Q
 à
 g
 음
 ሯ
 ò
 120
 756
 180
 969
 816
 The present invention provides human cDNAs, proteins and related genomic DNAs. These can be used in the treatment of neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal and proliferative disorders and inflammation. The present sequence is a genomic DNA of the invention
 09
 Isolated nucleic acid molecule encoding an inflammation-associated polypeptide is used in preventing, treating or ameliorating a medical condition.
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 TATGTTGCAGTTAGCTGGGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 Gaps
 ;
 DB 4; Length 2046;
 Disclosure; SEQ ID NO 875; 859pp + Sequence Listing; English
 Sequence 2046 BP; 500 A; 525 C; 515 G; 506 T; 0 U; 0 Other;
 0; Indels
 100.0%; Score 1191;
100.0%; Pred. No. 0;
tive 0; Mismatches
 08-NOV-2000; 2000US-0246609P.
08-NOV-2000; 2000US-0246610P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-0249207P.
17-NOV-2000; 2000US-0249209P.
17-NOV-2000; 2000US-0249210P.
17-NOV-2000; 2000US-0249210P.
17-NOV-2000; 2000US-0249210P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249214P.
17-NOV-2000; 2000US-0249218P.
17-NOV-2000; 2000US-0249218P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-025103P.
05-DEC-2000; 2000US-025103P.
05-DEC-2000; 2000US-025103P.
06-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251869P.
 11-DEC-2000, 2000US-0254097P.
05-JAN-2001, 2001US-0259678P.
 (HUMA-) HUMAN GENOME SCI INC
 Query Match 100.
Best Local Similarity 100.
Matches 1191; Conservative
 Barash SC,
 WPI; 2001-476161/51
 Rosen CA,
 637
 61
 121
 697
 757
```

S G

\$ 8

B 8

```
08-SEP-2000; 2000US-0231414P

08-SEP-2000; 2000US-02312080P

08-SEP-2000; 2000US-02312080P

14-SEP-2000; 2000US-02312080P

14-SEP-2000; 2000US-02312080P

14-SEP-2000; 2000US-0231239P

14-SEP-2000; 2000US-0231239P

14-SEP-2000; 2000US-0231239P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-023149P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-023149P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-0231309P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

14-SEP-2000; 2000US-02313064P

15-OCT-2000; 2000US-02313064P

16-SEP-2000; 2000US-02313064P

17-NOV-2000; 2000US-02313064P

18-NOV-2000; 2000US-02313069P

18-NOV-2000; 2000US-0231309P

18-NOV-2000; 2000US-023130P

18-NOV-2000; 2000US-02313
 Central nervous system, CNS; autoimmune disease, rheumatoid arthritis; hyperproliferative disorder; neoplasm; cardiovascular disorder; cardiovascular disorder; ischaemha; angiogenesis; nervous system disorder; Alzheimers's disease; AIDS; ocular disorder; acquired immunodeficiency virus; dysphagia; gastrointestinal disorder; adenocarcinoma; reproductive system disorder; testicular feminisation; endocrine disorder; iabetes; cancer; leukaemha; neovascularisation; erspiratory disorder; renal disorder; kidney failure; blood disorder; myocardial infarction; wound healing; cell proliferation; skin aging; food additive; food preservative; gene therapy; gene; ds.
 encoding novel central nervous system protein #33
 31-JAN-2000, 2000US-0179065P

24-FEB-2000, 2000US-0186464F

02-MAR-2000, 2000US-0186450F

16-MAR-2000, 2000US-0186350P

16-MAR-2000, 2000US-0189874P

17-MAR-2000, 2000US-0198123P

19-MAY-2000, 2000US-0198123P

11-JUL-2000, 2000US-0214886P

28-JUN-2000, 2000US-0214886P

11-JUL-2000, 2000US-0214886P

11-JUL-2000, 2000US-0214886P

11-JUL-2000, 2000US-0214886P

11-JUL-2000, 2000US-021680P

11-JUL-2000, 2000US-021680P

11-JUL-2000, 2000US-021680P

11-JUL-2000, 2000US-021680P

11-JUL-2000, 2000US-021680P

14-JUC-2000, 2000US-021680P

14-JUC-2000, 2000US-021680P

14-JUC-2000, 2000US-022566P

14-JUC-2000, 2000US-022513P

14-JUC-2000, 2000US-022513P

14-JUC-2000, 2000US-022514P

16-JUC-2000, 16-JUC-2000

16-JUC-2000

16-JUC-200

16-JUC-
 17-JAN-2001; 2001WO-US001332
 (first entry)
 WO200155318-A2
 Homo sapiens
 05-JUN-2002
 Genomic DNA
 02-AUG-2001
 ABK44021
```

\*\*\*

```
2000US-0249299P.
2000US-0249300P.
2000US-0250160P.
2000US-025139P.
2000US-0251030P.
2000US-0251988P.
2000US-0251988P.
2000US-0251888P.
2000US-0251868P.
2000US-0251868P.
 2000US-0251989P.
2000US-0251990P.
2000US-0254097P.
 (HUMA-) HUMAN GENOME SCI INC
 2001US-0259678P
 Barash SC,
 WPI; 2001-581633/65.
117-NOV-2000, 2
117-NOV-2000, 2
11-DEC-2000, 2
05-DEC-2000, 2
05-DEC-2000, 2
05-DEC-2000, 2
06-DEC-2000, 2
08-DEC-2000, 2
 preservatives.
 08-DEC-2000;
08-DEC-2000;
11-DEC-2000;
 New isolated
treating or a
 Disclosure;
 Rosen CA,
```

Ruben SM

The invention describes an isolated nucleic acid molecule (I) encoding a novel central nervous system protein. (I) and polypeptides (III) encoded by (I), are used to treat a medical conditions and in diagnosis of a pathological condition. Disorders which are diagnosed or treated include autoimmune diseases e.g. rheumatoid arthritis, hyperproliferative curdiac arrest, cerebrovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. corneal infection, gastrointestinal disorders e.g. dysphagia, anylotrophic lateral sclerosis, infections caused by bacteria, viruses e.g. corneal infection, gastrointestinal disorders e.g. dysphagia, cancers end pituitary dwarfism, cancers and disorders e.g. dysphagia, adenocationmas and irritable bowel syndrome, reproductive system disorders e.g. testicular feminisation, endocrine disorders e.g. andipancies, crespiratory disorders involving neovascularisation e.g. malignancies, crespiratory disorders e.g. nonallarist, renal disorders e.g. malignancies, crespiratory disorders e.g. nonallarist chinitis, renal disorders e.g. certicular end blood related disorders e.g. malignancies, crespiratory disorders end blood related disorders e.g. malignancies, crespiratory tissues, to respendence an also be used to aid wound healing and epithelial cell proliferation, to prevent skin aging due to sumburn, to maintain organs before transplantation, for supporting cell culture of primary tissues, to respendence as a food additive or preservative to increase or decrease storage capabilities, fat content, lipid, protein, carbohydrate, vitamins, minerals, coffactors and other nutritional ated nucleic acid encoding a protein for diagnosing, preventing, or ameliorating medical conditions and used as food additives or SEQ ID NO 1209; 837pp; English.

ö 120 240 969 756 180 Acceracidedecriceseceasecreesisces and another and another and another and another and another and another another and another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another another 9 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGGACACC TATGITGGAGITAGCTGGGGGGTGGTGGTGGTGGCACGGGCACCGTGGGGAATGTGCTC AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC rarerrecaerraceses de des de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de construc 121 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT Gaps . 0 DB 4; Length 2046; 0; Indels s; Score 1191; Db; Pred. No. 0;0; Mismatches 100.0%; 100.0%; Query Match Best Local Similarity 100.0 Matches 1191; Conservative 61 697 757 181 817 ò

g à Q  $\delta$ a

ò

1080 1020 1776 1116 1176 1236 1296 1356 1416 1536 1596 009 420 480 999 720 780 840 096 360 936 cregnaccrenagrenecaecrecaecringaececanecaaecececececrinaeaecaec 661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 1417 GCTGCCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGGTGAGAGAAGAGAACAAGA AAGAGAAGCTAAGCAAGATGGCAGAGAAAAGCCCTCCAGAAAGCATCTGCCAAAAGCCCAGCCA 1537 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 1597 idrirideididireterenenenenen 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idrirideterak 1597 idriridetera CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1717 CTCAATGGTTGCATCAACCCTGTGCTGCTTGTTGTTGTGCAGCCATGAACGGCCAATTCCGCCAAGCA TTTGCCTCCAATTCTGTCTCCATCCTGACCTCTGCCTCATCGCACTGGGACGCTACTC CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 1177 Arccicardecarciacirididecridedecicadeadrinedearcircialidecre ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA 1357 crecaccaccrraccarcaccaccaccacreaceaccacreaceacarricarcreaccacrear 901 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG TGITITGCIGIGITCCICICGCITITGCCCIGAGCIACAICCCCTICTIGCIGCICCAACAIT TACCTCCACCTGCACTGGCGCACCGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT rrrecerceaarrererecarecreacererecereacereareseacresacere crearracceaeceraagerrrreeceaagrrrreagraccaagggaragracregea CIGGIACCIGIAGICIGCACCIGCAGCITIGACCGCAICCGAGGCCGGCCITACACCACC GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC TACCTCCACCTGCACTGGCGCACCGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 1777 TATGGCTCCATTTTAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1827 TATGGCTCCATTTTAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAG 961 1081 1141 ' 1297 1057 1117 997 481 721 781 841 301 937 361 421 601 ö d g ð d ò a · 8 -d 8 Pp ठे рp à qq ò a à a & . q ò d à q -- 8

Search completed: September 23, 2004, 23:57:16 Job time : 540.426 secs

```
September 24, 2004, 02:47:20 ; Search time 958.703 Seconds (without alignments) 6292.206 Million cell updates/sec
 US-10-029-436-1_COPY_61_1251
1191
1 atgtggaacagctctgacgc......gtttccataggctccattag 1191
 6674772
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
 Total number of hits satisfying chosen parameters:
 3337386 segs, 2532474682 residues
 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
 OM nucleic - nucleic search, using sw model
 IDENTITY NUC
Gapop 10.0 , Gapext 1.0
 Minimum DB seq length: 0
Maximum DB seq length: 200000000
 Title:
Perfect score:
Sequence:
 Scoring table:
 Database :
 Searched:
 Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

| Description                   | Sequence 45, Appl Sequence 1, Appli Sequence 17, Appl Sequence 11, Appl Sequence 11, Appli Sequence 15, App Sequence 155, App Sequence 155, App Sequence 1209, Appl Sequence 1209, Appl Sequence 130, Appl |                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| SUMMARIES                     | US-10-343-650A-45<br>US-10-029-436-1<br>US-10-025-567A-584<br>US-10-073-885-11<br>US-09-798-710-1<br>US-09-764-853-875<br>US-09-764-86-84<br>US-09-764-86-84<br>US-09-764-886-84<br>US-09-764-886-84<br>US-09-764-886-84<br>US-09-764-886-84<br>US-09-764-886-84                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 110 -101-01-01-00 |
| DB                            | . 644 644 644 644 644 644 644 644 644 64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1                 |
| %<br>Query<br>Match Length DB | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7                 |
| %<br>Query<br>Match           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |
| Score                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                 |
| Result<br>No.                 | ρ υ<br>111111111111111111111111111111111111                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | #                 |

ر م

| Sequence 3, Appli<br>Sequence 121, Appl<br>Sequence 1251, Appl<br>Sequence 1251, Appl<br>Sequence 62, Appl<br>Sequence 26, Appl<br>Sequence 26, Appl<br>Sequence 26, Appl<br>Sequence 14, Appl<br>Sequence 14, Appl<br>Sequence 26, Appl<br>Sequence 26, Appl<br>Sequence 26, Appl<br>Sequence 26, Appl<br>Sequence 26, Appl<br>Sequence 38, Appl<br>Sequence 38, Appl<br>Sequence 38, Appli<br>Sequence 3, Appli<br>Sequence 15, Appli<br>Sequence 15, Appli<br>Sequence 15, Appli | equence 1, 1131;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0 CTGG                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| US-10-094-417-3 US-10-064-417-21 US-10-064-417-21 US-10-029-386-12527 US-09-764-83-62 US-09-764-886-26 US-09-764-886-26 US-09-764-886-26 US-09-764-886-386-314 US-09-764-886-386-314 US-10-103-313-26 US-10-073-885-38 US-10-073-885-38 US-10-029-386-2627 US-10-03-386-2627 US-10-25-567A-419 US-10-25-567A-419 US-10-23-567A-419 US-10-23-567A-414 US-10-23-567A-414 US-10-23-567A-414 US-10-23-567A-414 US-10-23-567A-414                                                                                                                                                                                                                                                                                         | 0S-10-054-589-1 ALIGNMENTS 13650A 10/343,650A 21 20/237818 501/34434 SCORE 1191; DB 13;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Pred. No. 0;  Mismatches 0; I  CCAACTTCTCCTGCTACCATGAG  CCAACTTCTCTGCTGCTACCATGAG |
| 155 155 155 155 155 155 155 155 155 155                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 144<br>1499A1<br>1499A1<br>1499A1<br>1499A1<br>140<br>140<br>140<br>170<br>170<br>170<br>170<br>170<br>170<br>170<br>17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | oo.o%;<br>ve<br>CTGACG                                                            |
| 11111111111111111111111111111111111111                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2048<br>2048<br>1 Ction U<br>040067<br>1 LOVE<br>1 LOVE<br>1 LOVE<br>1 CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF CTION OF | : 라프랑 타프랑                                                                         |
| 94.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6.4 Applicat Applicat No. US20 NWATION NO. US20 NVENTION LICATION LICATION CATION G DATE: CATION G DATE: SEQ ID NO: SEQ ID NO: SEQ ID NO: COS COS COS COS COS COS COS COS COS COS COS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Similarity 11; Conserva ATGTGGAACAG                                               |
| 00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | TIT 1 0-343-650A-4 iquence 45, Aplication No NNERAL INNORM PELICANT: HAMILE OF INVERTILE OF INVERTILE OF INVERTOR FILLING TRIOR APPLICANT RRIOR PILLING TRYDR PELING TO TAY BE DONG THE ORGANISM: HOPER DATE OF SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SEQUENCE TO SE              | s 1191                                                                            |
| 0 0 11 11 11 12 12 12 12 12 12 12 12 12 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | RESULT 1 US-10-343-650A-45 Sequence 45, Application US/10 Sequence 45, Application US/10 Sequence 45, Application US/10 Sequence 45, Application US/10 TITLE OF INVENTION: APPLICANT: HAGA, TATSUYA TITLE OF INVENTION NOVEL G-F FILE REPERBNCE: 31671-186347 CURRENT FILING DATE: 2000-08-04 PRIOR PILING DATE: 2000-08-04 PRIOR FILING DATE: 2000-08-04 PRIOR FILING DATE: 2000-08-04 SOFTWARE: PATCHING DATE: 2010-02-13 NUMBER OF SEQ ID NOS: 694 SOFTWARE: PATCHIN VET: 2.1 TYPE: DNA ORGANISM: HOMO SAPIENE TYPE: DNA ORGANISM: HOMO SAPIENE SEATURE: NAME/KEY: CDS US-10-343-650A-45 US-10-343-650A-45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Best Lo<br>Matchei<br>Oy<br>Db                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                   |

| 10029<br>38A1<br>38A1<br>50din<br>105/<br>12-1                                                                                                                                                                                                                                                                                               | Matches 1191; Conservative 0; Mismatches 0; Indels 0; Gaps Matches 1191; Conservative 0; Mismatches 0; Indels 0; Gaps  1 AIGTGGAACAGCTCTGACGCAACTTCTCCTGCTACATGAGTCTGTGCTGGCTATCGT 6  1 AIGTGGAACAGCTCTGACGCAACTTCTCCTGCTACATGAGTCTGTGCTGGCTATCGT 1  61 TATGTGCAGTTAGCTGGGGGTGGTGGTGACAGGCACCGTGGGCAATGTGCT 1  121 TATGTTGCAGTTAGCTGGGGGTGGTGGTGACAGGCACCGTGGGCAATGTGCT 1  121 TATGTTGCAGTTAGCTGGGGGTGGTGGTGGTGACAGGCACCGTGGGCAATGTGCT 1  121 ACCCTACTGGCCATCCAGCCGCTGACAGGCACCGTGGCAATGTGCT 1  121 ACCCTACTGGCCATCGGCGGTGGTGGCTGACAGGCACCGTGGCAATGTGCT 1  121 ACCCTACTGGCCATCGGCCAAGCTCCGTACCGAATCAACTGCTCATAGCC 1 | Db 181 ACCTACTGGCCTTGGCCATCCAGCCGATTCAACCTGCTCATAGCC 240  Oy 181 AACCTCACACTGGCTGATCTCTCTACTGCAGCCTTCTCTGTGGACACC 240  Db 241 AACCTCAACTGGCTGATCTCTCTACTGCAGCCTTCTTCTGTGGACACC 300  Oy 241 TACCTCAACTGCACTGGCTGCCACTCTTCTGCAGGGTATTTGGACACCT 300  Db 301 TACCTCCAACTGCACTGGCGCACCCGTTCTGCAGGGTATTTGGACTCCTTT 300  Oy 241 TACCTCCAACTGCACTGCACTGCACCTTCTGCAGGGTATTTGGACTCCTTT 300  Db 301 TTTGCCTCCAATTCTGTCTCTCATCTGACCCTCTTGCAGGGTATTTGGGCTCCTCTT 360  Oy 301 TTTGCCTCCAATTCTGTCTCCATCTGACCCTCTTGCCACTGGGACCCTTC 360  Bb 361 TTTGCCTCCAATTCTGTCTCCATCCTGACCTCTTGCCACTGGGACGCTACCTC 360  Bb 361 TTTGCCTCCAATTCTGTCTCCATCCTGACCTCTTGCCACTGGGACGCTACCTC 360 | 0y 421 CTGATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA 480 421 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA 480 0y 421 CTGGTGAGCACCTGGGTTGTGGCCCAGCAGTTTCAGTGCCAAGGGGATATTATATC 481 CTGGTGAGCACTCGGGTTGTTGGCCCAGCATTTGCTCCCCTTGGCCTATTTATATC 540 0y 481 CTGGTACCTGGGTTGTGGCCTGCAGCTTTGCTCCCCTTGGCCTATTTATATC 540 0y 541 ATCCTCATGGCACTTGCACTTGACTTGACCGCATCCGAGGCCGTTACACCACC 600 0y 541 ATCCTCATGGCATTTGTGCTTGGCTTGACCGATCTGAGGCCTTACACCAC 601 ATCCTCATGGCATTTGTGCTTGGGCTCGAGGCCGGCCTTACACCAC 602 ATCCTCATGGGCATTTGTGCTTGGGCTCGAGGCCGGCTTACTTTTTTTT |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21 ACCCTACTGGCCTTGGCCAAGCTCCGTACCGGATTCAACCTGCTGATAGCC 21 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCGGATTCAACCTGCTCATAGCC 81 ACCCTCACAGCTGGCCATCCAGCCCAAGCTCCGTACCGGATTCAACCTGCTCATAGCC 81 AACCTCCACACTGGCTGATCTCCTCTACTGCAGCTCCTTCTTCTGTGGACACCC 81 AACCTCCACACTGGCTGATCTCCTCTACTGCAGCTCCTTCTTCTGTGGACACCCTTTTTTCCTCACTCGCACTCCTTTTTTCTTTTTTTT | STACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGCCTTTGGCCCTTAGT  STACCTGTAGTCTGCACCTGCAGCTTTGACCGCATCCGAGCCGGCCTTAGT  STACCTGTAGTCTGCACCTTGAGTTTTGACCGCATCCGAGCCGGCCTTAGT  CCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATT  CCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATT  CCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATT  CCACCGCCAGGTCAAACGAGCACACAGGCACTGGACCAATACAAGTTGCGAC  CCACCGCCAGGTCAAACGAGCACACAGGCACTGGACCAATACAAGTTGCGAC  CCACCGCCAGGTCAAACGAGCACACAGGCACTGGACCAATACAAGTTGCGACCACGCCACGCCCAGGCCCAATACCAAGTTGCGACCACCACACCACACCAATACAAGTTGCGACCACCCAC                                        | 661 AGCATCCAA.CCATGGCCAGGACTGATGAGGCCATGGTGGTTTTCCAGGAG 720                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

\$ B \$

| 241 TACCTCCACCTGCACTGGCGCCCCTTCTGCAGGGTATTTGGGCTCCTCCTT 316 TACCTCCACCTGCACTGGCGCCACCTCTTCTGCAGGGTATTTGGGCTCCTCCTT 301 TTTGCCTCCACTTGTCTCCATCCTGACCTTCTGCTCTTCTGCAGGGACGCTACCTC 301 TTTGCCTCCAATTCTGTCTCCATCCTGACCTTCTGCTCTATCGCACTGGGACGCTACCTC 316 TTTGCCTCCAATTCTGTCTCCCATCCTGACCTCTTCTGCTCATCGCACTGGGACGCTACCTC 317 TTTGCCTCCAATTCTGTCTCCCATCCTGACCTCTGCCTCATCGCACTGGGACGCTACCTC 317 TTTGCCTCCAATTCTGTCTCCCAACTTTTTCAGTGCCAATGGGAGGGA | 4 4 U                                                                                                                                                                                                            |                                                                      | Qy 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 600                                                                                  | Qy 601 ATCCACCGCCAGGTCAAAGGAGCAGCACGAGCACCAATACAAGTTGCGACAGGCA 660                                                                                                      | OY 661 AGCATCCACCATCTGGCCAGGACTGATGAGGCCATGGCTTTCCAGGAG 720   | Oy 721 CTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT | Oy 781 GCTGCCACCACACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC 840                                                                | OY 841 AAGAGGCTAAGCAGATGGCAGAGAAAAGCCTCCAGAAGCATCTGCCAAGCCCAGCCA 900                                                                                                  | Qy 901 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAAATTTGGGAAGGTGACTCGAATG 960                                                                     | TCAACATT 10<br>          <br>TCAACATT 10                             | а а                                       | 1081 CICAAIGGITGCAICAACCCIGIGCICIAIGCAGCCAIGAACCGCCAATCC 1186           | Qy 1141 TATGGCTCCATTTTAAAAGGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1151<br>Db 1216 TATGGCTCCATTTTAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAG 1266 | RESULT 4<br>US-10-225-567A-584<br>; Sequence 584, Application US/10225567A<br>; Publication No. US20030113798A1 | ; GENERAL INFORMATION:<br>; APPLICANT: LifeSpan Biosciences<br>; APPLICANT: Brown, Joseph P. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 8 4 4 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                 | DD 901 ÀAGÀGÀGCTÀAGCÀGÀGÀGÀAÀAGCCCTCCÁGÀAGCÀTCTGCCÀAÀGCCÀGCA 960 QY 901 AITAAAGGAGCCAGAAGAGCTCCCGGATTCTTCATCGGAAITTGGGAAGGGCTCGAATG 960 Db 961 AITAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAAITTGGGAAGGTGACTCGAATG 1020 | Qy 961 TGTTTTGCTGTTCCTCTGCCTTTGCCCTGAGCTACATCCCCTTCTTGCTGAACATT 1020 | Qy         1021 CTGGATGCCAGAGTCCACGGGTGGTCCACATGCTTGCTGCCACCTCACCTGG 1080           Db         1081 CTGGATGCCAGAGTCCACGGGTGGTCCACATGCTTGCTGCCACCTGG 1140 | QY         1081 CTCAATGGATCAACCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140           DD         1141 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1200 | Oy 1141 TANGGCTCCATTTTAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191 | ESULT 3<br>15-09-826-508-37                                         | ; Sequence 37, Application US/09826508<br>; Patent No. US2010025099A1<br>; GENERAL INFORMATION:<br>; APPLICANT: Nabil Elshourbagy | , APPLICANT: Lisa Vaveer<br>TITLE OF INVENTION: G frotein-Coupled Receptor Polypeptides<br>; TITLE OF INVENTION: and Polynucleotides<br>; FILE REFERENCE: GP-70744USB | CURRENT APPLICATION NUMBER: US/09/826,508 CURRENT FILING DATE: 2011-04-05 NUMBER OF SEQ ID NOS: 40 SOFTWARE: FastSEQ for Windows Version 3.0 | SEQ ID NO 37 LENGTH: 1498 TYPE: DNA TYPE: DNA ORGANISM: HOMO SAPIENS | S-09-826-508<br>Query Match<br>Best Local | SCITCAROGCOAACTTCTCCTGCTACCATGAGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT | 61 TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGTGACAGGCACCGTGGGCAA.                                                                           | QY 121 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGGATTCAACCTGCTCATAGCC 180                                        | Oy 181 PACCTCACACTGGCTGATCTCCTCTACTGGACGCTCCTTCAGCCCTTCTCTGTGGACACC 240                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1546;  1547;  1548;  1548;  1548;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  1549;  15 | 210 RESULT 5 US-10-073-885-11 270 Sequence 11, Application US/10073885                                                                                                                            | 240                                                                     | TICCTT 300  TICCTT 390  ACCTC 360  ACCTC 360  ACCTC 450                                                                                                                                                                                                                                                                                                                                                        | TGGCA 420 | #80 ; LOCATION: (1554)  #80 ; COTHER INFORMATION: n equals of 18-10-073-885-11  570                                                                                      | 540 Best Local Similarity 100.0%; Pred. No. 0; Matches 1191; Conservative 0; Mismatches 0; Indels 0; Gaps 630 | Oy 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTGGGTGTGGGGCTATCGT                                                                                               | Oy         61 TATGTTGCAGTTACTGGGGGGTGGTGGTGGCTGAAAGGACGCAATGTGCTC  | OY 121 ACCTACTGGCCATCCAGCCAGTCCGTACCGATTCAACTGGTCTATAGCT 180                                                                                             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| APPLICANT: Burmer, Glenna C. APPLICANT: Burmer, Glenna C. TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G INTILE OF TILE REFERENCE: 1920-4-4 CURRENT APPLICATION WUMBER: US/10/225,567A CURRENT FILING DATE: 2001-12-19 PRIOR APPLICATION NUMBER: 60/257,144 PRIOR APPLICATION NUMBER: 60/257,144 PRIOR PILING DATE: 2000-12-19 NUMBER OF SEQ ID NOS: 2292 SOFTWARE: Patentin version 3.1 SEQ ID NO 584 LENGTH: 1546 TYPE: DNA TYPE: DNA ORGANISM: Homo sapiens US-10-225-567A-584 | 100.0%; Score 1191; DB 15; Length nservative 0, Mismatches 0; Indels GAACAGCTCTGCTGCTACCTGCTGAGTCTGTGGGGGCTGTGCTGCTGCTGCTGGGGCTGTGGGGGG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Db 151 TATGTIGGGGTGGGGGGTGGTGGTGGCTGAGGGGCGGGGGGATGTGCTC OY 121 ACCCIACTGGCCTIGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGGTCATAGCC Db 211 ACCCTACTGGCCTIGGCCATCCAGCCCCAAGCTCCGTACCGGATTCAACCTGCTCATAGCC | OY 181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGGCCCTTCTCTGTGGACACCCTC | QY         241         TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCC           Db         331         TACCTCCACTGGCGACCGGTGCCACCTTCTGCAGGGTATTTGGGGCTCC           QY         301         TTTGCCTCCAATTCTGTCTCCTCACCCTCTGCCCATCGCACGGTGGGACGCT           Db         391         TTTGCCTCCAATTCTGTCTCACCTCTAATCTGCCTCTATCGCACTGGGACGCTCTCATCGCAATTCTGTCTCAATTCTAATCTGACCTCTATCGCACTCATCGCAATTCTTTTTTTT |           | QY         421         CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTT           DD         511         CTGGTGAGCACCTGGGTTGTGGCCTGGCCTGGCCTATGCTCCCCTCTGGCCTATTT | Qy 481 CTGGTACCTGTAGTCTGCCACCTGCAGCTTTGACCGCAGCCGAGGCCGGCC                                                    | QY         541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATT           Db         631 ATCCTCATGGCATCTACTTGTGCTTGGGCCTCAGCAGTGTTGGCATCTTCTATT | 9y 601 ATCCACCGCCAGGTCAAACGAGCAGCACGAGCACTGGACCAATACAAGTTGCGAC<br> | Qy         661 AGCATCCACTCCAACCATGTGGCCCAGGACTGATGGCCCATGCCTGGTTTTCCAGGAG           Db         751 AGCATCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTTTTCCAGGAG |  |

```
199
 120
 259
 180
 319
 240
 379
 300
 439
 360
 499
 420
 559
 480
 619
 540
 679
 600
 739
 660
 799
 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTTCCAGGAG 720
 780
 260 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
 TITGCCTCCAAITCTGTCTCCATCCTGACCCTCTGCCCTCATCGCACTGGGACGCTACCTC
 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA
 680 ATCCTCATGGGCAICTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 740 AICCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAAIACAAGTTGCGACAGGCA
 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTAGCC
 AACCTCACACTGGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTCTGTGGACACC
 TTTGCCTCCAATTCTGTCTCCAACCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
 CTGGTGAGCACCTGGGTTGTGGGGGGTGGCCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC
 ATCCACCGCCAGGTCAAACGAGCAGAGCACTGGACCAATACAAGTTGCGACAGGCA
 800 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
 TACCTCCACCTGCACTGCCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTTT
 CTCATTGCCCACCCTAAGCTTTTTCCCCCAAGTGCCCAAGGGGATAGTGCTGGCA
 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
 Gaps
 0;
 Length 1595;
 Indels
 .;
0
 DB 9;
 Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1191; Conservative 0; Mismatches
CURRENT APPLICATION NUMBER: US/09/798,710
CURRENT FILING DATE: 2001-03-02
PRIOR APPLICATION WUMBER: 60/XXX,XXX
PRIOR FILING DATE: 2000-03-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 1595
TYPE: DA
TYPE: DA
ORGANISM: Homo Sapiens
US-09-738-710-1
 121
 320
 541
 721
 360
 140
 181
 241
 380
 301
 440
 361
 200
 421
 260
 481
 620
 601
 661
 g 25
 \delta
 op
 g
 g &
 g
 \delta
 엄청
 8 6 8
 6 B 6
 g
 8 8
 ò
 Db
 ò
 g
 ò
 \dot{\diamond}
 961 IGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCACATT 1020
1072 IGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTGCTCAACATT 1131
 1080
 1140
 1011
 1071
 1191
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1251
 420
 480
 540
 600
 099
 771
 720
 831
 780
 891
 840
 951
 900
 960
 360
 651
 711
 411
 471
 531
 591
 472 CICATIGCCCACCCIAAGCTITITICCCCAAGITITICAGIGCCAAGGGATAGIGCIGGCA
 CIGGIGAGCACCIGGGTIGIGGGCGIGGCCAGCTTIGCTCCCCCTCTGGCCTATTTATAIC
 952 AAGAGAGCTAAGCAGATGGCAGAAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAAGGCCA
 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
 crecarcecadacrecedescreeces
 CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
 TITGCCTCCAATTCTGTCTCCATCCTGACCTCTGCCTCAATCGCACTGGAACGCTACTC
 ATCCACCGCCAGGTCAAACGAGCACACAGGCACTGGACCAATACAAGTTGCGACAGGCA
 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 892 GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
 AAGAGGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTTT
 CTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
 TATGGCTCCATTTATAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG 1302
 Sequence 1, Application US/09798710
Publication No. US20020187947A1
GENERAL INFORMATION:
APPLICANT: Jarai, Gabor
APPLICANT: Cooper, Paul Roy
APPLICANT: Yousefi, Shida
ITILE OF INVENTION: No. US2020187947A1e1 Gene
 RESULT 6
US-09-798-710-1
 1132
 1192
 1141
 1252
 1021
 412
 532
 592
 772
 721
 901
 1081
 352
 361
 421
 481
 601
 661
 832
 781
 841
 301
 dd
 g
 à
 Dp
 8 S
 ò
 임
 ò
 Ω
 ò
 Dp
 ò
 임
 ò
 엄
 \delta
 Db
 à
 g
 ò
 d
 ò
 d
 ò
 g
 8
 g
 à
 8 8
```

841 AAGAGAGCTAAGCAGATGGCAGAGAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 900

781 GCTGCCACCACACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC

| 10   10   10   10   10   10   10   10           | RESULT 8  US-09-989-442-155  Sequence 155, Application US/09989442  Sequence 155, Application US/09989442  Publication No. US20030013649A1  GENERAL INFORMATION:  APPLICATT: ROSEN et al.  TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies  TITLE OF INVENTION: NUMBER: US/09/989,442  CURRENT FILING DATE: 2000-01-31  PRIOR APPLICATION NUMBER: 60/179,065  PRIOR APPLICATION NUMBER: 60/180,628  PRIOR PILING DATE: 2000-02-04  PRIOR FILING DATE: 2000-02-04  PRIOR FILING DATE: 2000-06-28  PRIOR FILING DATE: 2000-06-28  PRIOR FILING DATE: 2000-06-28  PRIOR FILING DATE: 2000-06-28  PRIOR FILING DATE: 2000-06-11 |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Db 380 AAGAGCCCAAAACCCCCCCAAAACCCCCCCCAAACCCCCC | 121 ACCCTACTGGCCTTGGCCATCCAGCCGATCCGATTCAACCTGCTCATAGCC 180   151 ACCCTACTGGCCTTGGCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180   152 ACCTCACTGGCCTTGGCCTTCTTCGGATTCCACTGCTCATAGCC 240   181 AACCTCACTGGCTGATCTCCTCTTCTGGACACC 240   181 AACCTCACTGGCTGATCTCCTCTTCTGGACACC 240   181 AACCTCACTGGCTGATCTCCTCTTCTGGACACC 240   181 AACCTCACTGGCTGATCTCCTCTTCTGGACACC 376   181 AACCTCACTGCGCTGATCTCCTCTTCTGGAGCTCTTCTGGAGCACCTTCTGGAGCACCTCTTGGAGCTCTTTTGGGCTCCTCTTTTGGGCTCCTCTTTTGGGCTCCTC                                                                                                                                                     |

```
PRIOR APPLICATION NUMBER: 60/225,758

PRIOR PILING DATE: 2000-0914

PRIOR PILING DATE: 2000-0914

PRIOR PILING DATE: 2000-09126

PRIOR PILING DATE: 2000-091126,447

PRIOR PILING DATE: 2000-091126,447

PRIOR PILING DATE: 2000-091126,947

PRIOR PILING DATE: 2000-09126,968

PRIOR PILING DATE: 2000-09126,968

PRIOR PILING DATE: 2000-09126,686

PRIOR PILING DATE: 2000-09126,686

PRIOR PILING DATE: 2000-09126,647

PRIOR PILING DATE: 2000-09126,647

PRIOR PILING DATE: 2000-09126,647

PRIOR PILING DATE: 2000-0914,647

PRIOR PILING DATE: 2000-0914,647

PRIOR PILING DATE: 2000-0914,699

PRIOR PILING DATE: 2000-0914,619

PRIOR PILING DATE: 2000-0916,919

``

PRIOR APPLICATION NUMBER: 60/236, 367

PRIOR PELING DATE: 2000-0-29

PRIOR PELING DATE: 2000-0-29

PRIOR PELING DATE: 2000-0-29

PRIOR PELING DATE: 2000-0-29

PRIOR PELING DATE: 2000-0-0-29

PRIOR PELING DATE: 2000-0-0-29

PRIOR PELING DATE: 2000-0-0-29

PRIOR PELING DATE: 2000-0-0-29

PRIOR PELING DATE: 2000-10-0-2

PRIOR PELING DATE: 2000-10-13

PRIOR PELING DATE: 2000-11-17

PRIOR PELING DATE: 2000-11-17

PRIOR PELING DATE: 2000-11-17

PRIOR PELING DATE: 2000-11-17

PRIOR PELING DATE: 2000-0-12

PRIOR PELING DATE: 2000-11-17

PRIOR PELING DATE: 2000-0-12

PRIOR PELING DATE: 2000-0-12

PRIOR PELING DATE: 2000-0-12

PRIOR PELING DATE: 2000-0-11-17

PRIOR PELING DATE: 2000-0-11-17

PRIOR PELING DATE: 2000-0-17

PRIOR PELING DATE: 2000-1-17

PRIOR

```
1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1776
                                                                                               1176
                                                                                                                                                                                               1236
                                                                                                                                                                                                                                                                                                 1296
                                                                                                                                                                                                                                                                                                                                                                                                    1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1656
1057 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 1116
                                                                                                                                                                                                                                                  999
                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                 1477 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1537 ATTARAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cicaangenicancancerererererangeagecangaaceecanticeecaagea
                                                                                                                                                                                    ATCCACCACCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                       661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841 AAGAGGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTAAAGGAGCCAGAAGGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
                                                                                                                                                  ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                    601 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cresacaecaecrivaccarcaesaecccaercaesesesarircarcreaeccaercaer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 2046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 9
US-09-764-886-84/C
109-764-886-84/C
109-764-886
109-764-886-84/Application US/09764886
109-764-886
109-764-886-84/Application US/09764886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
109-764-886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1191; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
CORGANISM: Homo sapiens
US-09-764-886-84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2046
                                                                                                                                                                                                                                                                                                       1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1777
                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                     \delta
                                                                                                  g
                                                                                                                                                  ò
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                            ά,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CIGGIGAGCACCIGGGTIGIGGGGGGGGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ranginecaginacinecesesinesisenesisenesiseacaescaescaesesanenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCGGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCGGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGTATTTGGGCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 raccrecacerecacededededededecenteredededarringederecterr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 10; Length 2046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1191; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                            R FILING DATE: 2000-09-08
R APPLICATION NUMBER: 60/231,244
R FILING DATE: 2000-09-08
R PILING DATE: 2000-09-14
R FILING DATE: 2000-09-14
R APPLICATION NUMBER: 60/233,063
                                                                                                                                                                                                    APPLICATION NUMBER: 60/232,080
FILING DATE: 2000-09-08
APPLICATION NUMBER: 60/231,414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2000-09-14
APPLICATION NUMBER: 60/241,808
FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2000-10-20
APPLICATION WINBER: 60/241,826
FILING DATE: 2000-10-20
APPLICATION NUMBER: 60/241,786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/246,475
PRIOR FILING DATE: 2000-11-08
PRIOR PELING DATE: 2000-13,243
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/233,065
                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2000-09-14
APPLICATION NUMBER: 60/232,397
FILING DATE: 2000-09-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/232,399
FILING DATE: 2000-09-14
                          FILING DATE: 2000-11-17
APPLICATION NUMBER: 60/232,400
                                                                             FILING DATE: 2000-09-14
APPLICATION NUMBER: 60/231,242
                                                                                                                               FILING DATE: 2000-09-08
APPLICATION NUMBER: 60/232,081
FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 2000-10-20
APPLICATION NUMBER: 60/241,221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2000-09-14
APPLICATION NUMBER: 60/232,401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 2000-09-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
```

쉱 ò 셤 Ś g 8 셤 ò B 8 .. 0

qq

ò a

8 G

දු පු

 δ

ò qq qq

ò

Op

à qq S qq

\$ g \$

С ò

Oy 1081 CTCAANGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 114 Db 330 CTCAATGGTTGCATCAACCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 271 Oy 1141 TATGGTTCCATTTAAAAAGGGGCCCCGGAGTTTCCATAGGTTCCATTAG 1191 Db 270 TATGGTTCCATTTTAAAAAGGGGCCCCGGAGTTTCCATAGGTTCCATTAG 120	RESULT 10 US-09-764-875-1209 Sequence 1209, Application US/09764875 PUBLICATION NO. US220040018969A1 GENERAL INFORMATION: APPLICANT: Rosen et al. TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REFERENCE: PUZ02 CURRENT APPLICATION NUMBER: US/09/764,875 CURRENT FILING DATE: 2001-01-17 Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 1249 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 1209 LENGTH: 2046	; TYPE: DNA ; ORGANISM: Home sapiens US-09-764-875-1209 Us-vy Match Query Match Best Local Similarity 100.0%; Score 1191; DB 11; Length 2046; Best Local Similarity 100.0%; Pred. No. 0; Matches 1191; Conservative 0; Mismatches 0; Indels 0; Gaps 0	Oy 1 AIGTGGAACACTCTGACCAACTTCTCCTGCTACCAIGAGTCTGGCTGGCTAGCTG 60	Oy 121 ACCCTACTGGCCTTGGCCAAGCTCCGTACCGGATTCAACCTGCTCATAGGC 180	Qy 241 TACCTCCACCTGCACCTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT 300 bb 877 TACCTCCACCTGCACTGGCGCACCGGTGCCACTCTGCAGGGTATTTGGGCTCCTCTT 936 Qy 301 TTTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCATCGCACTGGAACGCTACCTC 360 bb 937 TTTGCCTCCAATTCTGTCTCCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC 360 pb 937 TTTGCCTCCAATTCTGTCTCCCATCCTGACCCTCTGCCTCATCGGACTACCTC 360	Qy 361 CTCATTGCCCACCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA 420 Db 997 CTCATTGCCCACCTTATTCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA 1056 Qy 421 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 480 Db 1057 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 1116	
1 AIGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 60	121 ACCCTACTGGCCTTGGCCCAAGCTCCGTACCGGATCCACCTGCTCATAGCC	CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCACACACA	CTGGTAGCCACCTGCGCCTGCGCCCCGCTCTCCCCCTCTGGCCCTATTTTAGCCCGCCTACTCTGGCCCTTACACCACCCCCCCTCTGGCCCTTACACCACCCCCCCC	ATCCACCGCCAGGTCAACGAGCAGGACAGGACTGGACCAATCTTCTATTGCCTCATCACCCCCCCC	AGCATCCACTCCAATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG CTGGACAGCAGGTTAGCATCAGGAGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT	GCTGCCACCACCAGACCTGGAAGGGGGACTCATCAGAAGTGGGGAGACACAGATCAACAGC 5 AAGAGAGCTAAGCAAGGCAGAGAAAAGCCTCCAGAAGCATCTGCCAAAGCCAGCA 9	510 ATTARAGRAGCCAGAAGAGCTCCGGATTCTTCATCGAATTTGGGAAGGTGACTCGAATG 451 961 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT 1020 450 TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCTTGTTGCTGCTCAACATT 391 1021 CTGGATTCCCAGAGTCCCTGGGTGCTTGCTTGCTGCTGCTCACGTT 391 1021 CTGGATTGCTGAGGTCCCCGGGTGGTCCACATGCTTGCTGCTACCTGG 1080

```
1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               757 Acceracitésécerrésécearceaséceaaséreceracesarreaacerserearasee 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACCICCACCIGCACIGGCGCACCGGGCCACCTICTGCAGGGTATTTGGGCTCCTCTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 ITTGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTAGCTC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCCTACTGGCCTTGGCCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                               1417 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                         ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
                                                                                                                                                             1597 idririgerigidirecterederirecerasaecraeareecerretrecreaearr
                                                                                                                                                                                                                                                                                                     1657 CIGGAIGCCAGAGTCCAGGCTCCCCGGGTGGTCCACAIGCTTGCTGCCAACCTCACAGG
                                                                                                                                                                                                                                                                                                                                                     CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
                                                                                                                                                                                                                                                                                                                                                                         697 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGTGTGAGAGGCACCGTGGGGCAATGTGCTC
                                                                                                                                                                                                                                                                                TATGTTGCAGTTAGCTGGGGGGGGGGGGGCTGAGGCACCGTGGGCAATGTGCTC
                                                                      AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGGCCA
                                                                                                                                                                                                             TGTTTTGCTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    637 Argregakcascrersakssekstrerenskeracearsasererskerssekstres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141 TATGGCTCCATTTTAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 2046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Palm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Ar.
FILE SPERENCE: PAZO9C1
CURRENT APPLICATION NUMBER: US/10/073,865
CURRENT APPLICATION NUMBER: US/20/2-14
Prior Application removed - See file Wrapper or Pal, NUMBER OF SEQ ID NOS: 154
SOFTWARE: Patentin Ver. 2.0
LENGTH: 2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 1191;
100.0%; Pred. No. 0;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
US-10-073-865-130
IS-10-073-865-130
Sublication US/10073865
Hublication No. US20030044904A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 1191; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
CORGANISM: Homo sapiens
US-10-073-865-130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                              1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                         1081
                                                                          841
                                                                                                                                             901
                                                                                                                                                                                                                 961
       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                             ŏ
                                                                                                점 상 점
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      997 crearrecceaceraacerririreceeaacririreacreecaacecaraceearaarecreea 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                                                             969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       817 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 120
                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      697 TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 TITGCCICCAATICIGICICCATCCIGACCCICIGCCICATCGCACTGGGACGCTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     937 TITGCTCCAAITCTGTCTCCATCCTGACCCTCTGCTCATGGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 ACCCTACTGGCCTTGGCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 TACCICCACCIGCACTGCGCACCGGTGCCACCIICTGCAGGGTATITGGGCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCACCGCCAGGTCAAACGAGCACCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                         1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                             637 ArgregaAcaccrereacecaacrrerectraceareacareacresecresecrater
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                        ·
0
                                                                                                                                                                                                                                                                                                        Length 2046;
Sequence 130, Application US/09764893

Publication No. US20020086330A1

GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PJZ09
CURRENT APPLICATION NUMBER: US/09/764,893
CURRENT FILING DATE: 2001-01-19
Prior application data removed - consult PALM or file wrapper
NUMBER OF SEQ ID NOS: 154
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 130
                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                        DB 13;
                                                                                                                                                                                                                                                                                                     100.0%; Score 1191;
100.0%; Pred. No. 0;
live 0; Mismatches
                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.0
Matches 1191; Conservative
                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-764-893-130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
```

Dp

g

Ωþ ò Dp ò g ò 셤 δ 임 ò g ठ

à

임 à g ò g

 $\stackrel{>}{\circ}$

B ò

à

```
Query Match 100.
Best Local Similarity 100.
Matches 1191; Conservative
                                     sapiens
SEQ ID NO 592
LENGTH: 2046
TYPE: DNA
ORGANISM: HOMO S
                                             US-10-103-313-592
                                                                                                                                                                                                                            757
                                                                                                                                                                                                                                                                                                                     877
                                                                                                                                                                                                                                                                                                                                                                 937
                                                                                                                                                                                                                                                                                                                                                                                                            997
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                      637
                                                                                                                                                          61
                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                        817
                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                ઠ
                                                                                                                                  g
                                                                                                                                                          ò
                                                                                                                                                                              d
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                        1056
                                                                                                    1116
                                                                                                                                                 1176
                                                                                                                                                                                            1236
                                                                                                                                                                                                                                       1296
                                                                                                                                                                                                                                                                                    1356
                                                                                                                                                                                                                                                                                                                                1416
                                                                                                                                                                                                                                                                                                                                                                           1476
                                                                                                                                                                                                                                                                                                                                                                                                                        1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140
                                                                                                                           540
                                   420
                                                                               480
                                                                                                                                                                      009
                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                          780
              966
                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                              960
 TTTGCCTCCAATTCTGTCTCCATCCTGACCTCTGCCTCCATCGCACTGGGACGCTAC
                                              CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                            CTGGTGAGCACCTGGCTTGTTGTGGCCAGCTTTGCTCCCCTCTGGCCTTTATATATC
                                                                                                                                                                                         1177 Arcercardedecarcracerrerecerredecarcaceaererredecarcracrarrecere
                                                                                                                                                                                                                                  ATCCACCECCAGTCAAACGAGCAGCAGCACCAGGACCAATACAAGTTECGACAGGCA
                                                                                                                                                                                                                                                              661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                             1297 AGCATCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
                                                                                                                                               1117 cregraccreragrerecacerecaecrrreaceecareceaeeceecerracaeeae
                                                                                                                                                                                                                                                                                                                                                                         GCTGCCACCACCAGACCCTGGAAGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGAGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGGCATCTGCCAAAGCCCAGGCA
                                  CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                          ATCCTCATGGGCATCTACTTTGTGCTTTGGCCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                  ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                          ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA
                                                                               CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                              GCTGCCACCACCCAGCCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                 841 AAGAGAGTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAAGCATCTGCCAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATGGCTCCATTTTAAAAAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATGGCTCCATTTTAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATTAG 1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-103-313-592

Sequence 592, Application US/10103313

Publication No. US20030082758A1

GENERAL INFORMATION:

APPLICANT: Rosen et al.

TITLE OF INVENTION: Nucleic Acids, Proteins, and Ant
FILE REFERENCE: PJZ07C1

CURRENT APPLICATION NUMBER: US/10/103,313

CURRENT FILING DATE: 2002-03-12

NUMBER OF SEQ ID NOS: 653

Prior Application removed - See File Wrapper or

SOFTWARE: Patentin Ver. 2.0
                                                                                                   1057
             937
                                                                             421
                                                                                                                                                                                                                                                                                                                                                                           1417
                                                                                                                                                                                                                                                                                                                                                                                                                      1477
                                  361
                                                        997
                                                                                                                          481
                                                                                                                                                                      541
                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                            . d
                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                \delta
                                                     g
                                                                      ò
                                                                                             원
장
                                                                                                                                           CD
                                                                                                                                                              S
S
                                                                                                                                                                                                          상 원
                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                  쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            台
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

Antibodies

Palm

OL

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1596
                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                             969
                                                                                                                                                                                      756
                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                   816
                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                           876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                      936
                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               986
                                                                                                                                                     TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                        697 TATGTTGCAGTTAGCTGGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                                                            ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                             ACCCTACTGGCCTTGGCCATCCAGGCCCAAGCTCCGTACCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTAAAGGAGCCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTABAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                             AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                    TACCTCCACCTGCACTGCCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                        1177 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATGIGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGCTATCGT
                                                                                                   ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                       AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITGCCTCCAATICTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Triscorocaarrensionecarcersaceerersecrearesearesearesere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCCTCTGGCCTATTTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     crestandeaccaccrescristses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1117 crosracereragrerecacerecacerrigacedeareceagecegeerracaceae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601 ATCCACCGCCAGGTCAAACGAGCAGCACCAGGCACTGGACCAATACAAGTTGCGACAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTGCCACCACCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
  DB 15; Length 2046;
                                      ,
0
                                      Indels
                                      ö
100.0%; Score 1191;
100.0%; Pred. No. 0;
                                      Mismatches
                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>Q</u> .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

961 IGTTTIGCTGTGTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTGTTGCTGCTCAACATT 1020 	γ d d	TCCTGACCCTCTGCTCATCGCACTGGGACGCTACCTC 3
1021 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCACATGCTTGCT	් දුර	CTCATTGCCCACCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCAGATTTTCAGTGCCAAGGGGATAGTGCTGCCAAGGTTTTCAGTGCCAAGGGGATAGTGCTGGCAAGGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAG
1081 CTCAATGGTTGCATCAAACCCTGTGCTCTAAGCGCCATGAACCGCCAATTCGGCCAAGCA 1140 	, Qy Db	421 CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTATATC 480
1141 TATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCATTAG 1191	yo da	481 CTGGTACCTGTAGTCTGCACCTGCAGCTTTGACCGCAGCCGAGGCCGGCC
15 194-417-3	o da	541 ATCCTCAIGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC 600 [
0094417 5A1	Q.	601 ATCCACCGCCAGGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCA 660
APPLICANT: Zhao, Jiagang APPLICANT: Chen, Jin-Long APPLICANT: Cutler, Gene	රු යු	661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 720
LE OF INVENTION: No. US20030045685Alel Receptors 2. REFERENCE: 018704-0081410US SENT APPLICATION NUMBER: US/10/094,417 RENT FILING DATE: 2002-06-10	λ <u>α</u>	721 CTGGACAGGTTAGCATCAGGAGCCCAGTGAGGGGATTTCATCATCAGACCAGTCAGT
PRIOR APPLICATION NUMBER: US 09/802,803 PRIOR FILLING DATE: 2001-03-09 PRIOR APPLICATION NUMBER: US 60/276,649 PRIOR FILLING DATE: 2001-03-16	oy G	781 GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGCCAGATCAACAGC 840
MBER OF SEQ ID NOS: 43 FIRARE: Patentin Ver. 2.1 ID NO 3 ENGTH: 1188	da da	841 AAGAGGCTAAGCAGAGAGAGAGAGCCTCCAGAAGCATCTGCCAAAGCCCAGCCA 900
TYPE: DNA ORGANISM: Homo sapiens PEATURE: OTHER INFORMATION: human G-protein coupled receptor (GPCR) TGR35	QY Db	901 ATTAAAGAACCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG 960
FEATURE: NAME/KEY: CDS LOCATION: (1)(1188) OTHER INFORMATION: human G-protein coupled receptor (GPCR) TGR35 0-094-417-3	çy Db	TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
nery Match 99.7%; Score 1188; DB 15; Length 1188; set Local Similarity 100.0%; Pred. No. 0; atches 1188; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	oy do	CTGGATGCCAGAGTCCAGGCTCCCGGGTGCACGTTGCTTGC
AACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCT 	oy Op	1 CTCANTGGTTGCATCAACCCTGTGCTCTATGCAGCCATCGAGCAATTCCGCCAAGCA 11%
61 TATGTTGCAGTTAGCTGGGGGTGGTGGTGGTTGACAGGCACCGTGGGCATGTGCTC 120 61 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 120	QV Db	1141 TATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCATAGGCTCCAT 1188
121 ACCCTACTGGCCTTGGCCATCCAGCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180 121 ACCCTACTGGCCTTGGCCATCCAGCCCAAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180	Search Job tim	completed: September 24, 2004, 08:34:15 ne : 961.703 secs
181 AACCICACACIGGCTGAICTCCICIACIGCACGCTCCTTCAGCCCTTCTCTGTGGACACC 240		
241 TACCTCCACCTGCACTGGCGCACCGGTGCCATCTCCAGGGTATTTGGGCTCCTCTT 300 1	···	

CD367121 UI-H-FT2-CD366430 UI-H-FT2-CD366881 UI-H-FT2-CD366881 UI-H-FT2-CD366881 UI-H-FT2-CD366881 UI-H-FT2-CD365279 UI-H-FT2-CD365279 UI-H-FT2-CD365279 UI-H-FT2-CD365279 UI-H-FT2-CD470995 LEUKOSS_3 BM254098 S15432 MA BE567988 G0212233 BM25410 LILEARO-D36450 LEUKON-D36450 LEUKON-D36450 LEUKON-D36450 LEUKON-D36450 LEUKON-D36412 LEUKON-D36450 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D366514 LEUKON-D36651 LEUKON-D366514 LEUKON-D36651 LEUKON-D366514 LEUKON-D36651 LEUKON-D36661 LE

Sequence:

Title: Perfect :

Run on:

Searched:

Minimum Maximum I

Database

Result No.

```
Homo sapiens GPR84 gene, VIRTUAL TRANSCRIPT, partial sequence, genomic survey sequence.
AY404787
GSS 16-DEC-2003
AY404787
GSS 16-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates; Catarrhini, Hominidae, Homo.
1 (bases 1 to 1191)
1 (clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Reriaras, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, W. White, T.J., Sninsky, J.J., Inferring nonneutral evolution from human-chimp-mouse orthologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 (bases 1 to 1191)
Clark, A.G., Glancwski, S., Nielson, R., Thomas, P., Kejariwal, A.,
Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B.,
Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J.,
Adams, M.D. and Cargill, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene trios
Science 302 (5652), 1960-1963 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                           CD464304
BF706009
AI392922
CD536362
CD464476
                                                                                                                                                        BE958211
CF739045
BI773943
CD366344
                                                                                                                                                                                                         BM105642
CD536450
CB221964
BM680856
BF167811
BF654980
                                                                                                                                                                                                                                                                                     CD464412
BX511990
CD470023
BE502961
BG232061
                                                                                                                                                                                                                                                                                                                                                     CD465714
CD470028
CD470901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AW213499
BG235994
  Homo sapiens (human)
0800771
0007771
0007771
000777
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
00077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
14671302
                                                                                                                                                                                                                                                                          386
382
364.2
                                                   460.6
4438
4436
4435
4435
4405
397
397
387
387
                                                                                                                                                                                                                                                354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AY404787
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
    AY404787 Homo sapi
AY404788 Pan trog1
AY404789 Mus muscu
BX348812 BX348812
                                                                                          September 23, 2004, 22:14:09; Search time 3457.33 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                        1 atgtggaacagctctgacgc......gtttccataggctccattag 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                 55026578
                GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                      27513289 segs, 14931090276 residues
                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                             US-10-029-436-1_COPY_61_1251
1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AY404787
AY404788
AY404789
BX348812
                                                                                                                                                                                                                                                                                                                               Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                  - nucleic search, using sw model
                                                                                                                                                                                                  IDENTITY NUC Gapop 10.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em gss inv:
em gss pln:
em gss vrt:
em gss mam:
em gss mam:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       em_gss_pro:
em_gss_rod:
em_gss_rohg:
em_gss_vrl:
gb_gssl:*
                                                                                                                                                                                                                                                                                           seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                              em_estba:..
em_estbum:..
em_estbun:..
em_estbu:..
em_estcy:..
em_estcy:..
em_estcy:..
em_estcy:..
gb_estc:..
gb_estc:..
gb_estc:..
em_estfun:..
em_estfun:..
em_estcun:..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               em_gss_hum:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1191
1187
1191
997
                              Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0
93.7
74.7
67.1
                                                                                                                                                                                                                                                                                                                                                                                     EST: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211112
                                                                                                                                                                                                                                                                                                                                     Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1191
1116.2
889.2
798.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                               score:
                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                           0B
0B
                                                                     nucleic
```

	MANAGARA LOCUS ANAGARA LOCUS Part to copologyees GRE84 gene, VIRTUAL TRANSCRIPT, partial sequence, ACCESSION Part to copologyees GRE84 gene, VIRTUAL TRANSCRIPT, partial sequence, ACCESSION WIGHTON TO COLOR SULVEY SEQUENCE. MANAGE COLOR ANAGARE COLOR SECURITION OF COLOR ANAGARE ANAGARE ANAGA
JOURNAL Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive, Rockville, MD 20850, USA COMMENT This sequence was made by sequencing genomic exons and ordering them based on alignment. FEATURES 1. 1191 Anglitype="genomic DNA" Abb_xref="taxon:9606" Acl>1191 Agene="GPR44" Abcus_tag="HCM2007" Ouery Match Best Local Similarity 100.0%; Score 1191; DB 29; Length 1191; Best Local Similarity 100.0%; Pred. No. 3.3e-293; Matches 1191; Conservative 0; Mismatches 0; Indels 0; Gaps 0; ATGTGGAACAGCTTCAACGCCAACTTCTCCTGCTACATGACTCTGTGCTGGCTATCT 60 Oy ATGTGGAACAGTTTAACTGCGCAACTTCTCTGCTACATGACTCTGTGCTGGCTATCT 60 Oy ATGTGGAACAGTTTAACTGCGCAACTTCTCTGCTGCTGGCTATCTT 60 Oy ATATGTTGCAGTTAAGCTGGGGGTGGTGGTGACGGCAATGTGCTC 120 Bb ATGTTGCAGTTAAGCTGGGGGTGGTGGTGGCTGTGCCTGGCCAATGTGCTC 120 CONTACT Conservative Conse	

9 & 9 9 & 2

6 8 6 8 6

g

Qy 1141 TATGGCTCCATTTAAAAGAGGGCCCCGGAGTTTCCATAGGCTCCA 1187	RESULT 3 AY404789 LOCUS AY404789 LOCUS DEFINITION MUS musculus GPR84 gene, VIRTUAL TRANSCRIPT, partial sequence, genomic survey sequence. ACCESSION AY404789 VERSION AY404789.1 GI:39760766		Ferriers, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. TITLE Inferring nonneutral evolution from human-chimp-mouse orthologous gene trios JOURNAL Science 302 (5652), 1960-1963 (2003) PUBMED 14671302 Chases 1 to 1191)	AUTHORS Clark, A.G., Glanowski, S., Nielson, R., Thomas, P., Kejariwal, A., Todd, M.A., Tanenbaum, D.M., Civello, D.R., Lu, F., Murphy, B., Ferriera, S., Wang, G., Zheng, X.H., White, T.J., Sninsky, J.J., Adams, M.D. and Cargill, M. TITLE Direct Submission JOURNAL Submitted (16-NOV-2003) Celera Genomics, 45 West Gude Drive,	မ	/db_xref="taxon:10090"	Query Match Best Local S Matches 1002	ATGIGGAACAGCTCAGATGCCAACTTCTCCTGCTACCATGAGTCTGTGTTGGGCTATGA ATGIGGAACAGCTCAGAGGGGGGGGGGGGGGGCTGCTGCTACCATGAGTCTGGGCTATGAG TATGTTGCAGTTAGCTGGGGGGGGGG	Qy 121 ACCCTACTGGCCTTGGCCTTCCGGCCGATTCAACCTGCTGATGGC 180 Db 121 ACTCTGTGGCCTTGGCCATTGGTCCCAAGCTCCGAACCTGGTTCAACCTGCTCATTGCC 180 Qy 181 ACTCTGACTGGCTGGTCTCTTCTTCTGCGCCCTTCTGTGGACGC 240	181 AACTCACCTGGTGATCTACTGTGACGCTCCTGCAGGCTTTCTCCGTGGACACA 241 TACCTCCACCTGCACTGCACCGTGCCACCTTTCTGCAGGGTATTTGGGCTCCTT 241 TACCTCCACTTGGAGGGAACGGGGGGGCGCTCTTCTGTAGGAATATTTGGACTCCTC 241 TACCTCCACCTCCATTGGGGTACGGGGGGGCGCTTCTGTAGAATATTTGGACTCCTCCTC	Oy 301 TTTGCCTCCATTCTGCTTCCTGACCTCTGCTCATCGCACTCGCACTCACCTC 300	
1 AIGIGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGGCTATCGT 60 61 TATGTTGCAGTTAGCTGGGGGGTGGTGGCTGTGACAGGCACGTGGGCAATGTGCTC 120 61 TATGTTGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGGCACGTGGGCAATGTGCTC 120	121 ACCCTACTGGCCTTCGGCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC 180	TACCTCCACCTGCACTGGGGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT	301 TINGCCICCAATTCIGICTCCAICCICACCCICIGCCACGCACGCACGCIACCIC 300 361 CTCATIGCCCACCCTAAGCTITITCCCCAAGTTTCAGTGCCAAGGGATAGTGCTGGCA 420 361 CTCATIGCCCACCCTAAGCTITITCCCCAAGTTTTCAGTGCCAAGGGATAGTGCTGGCA 420 421 CTGGTGAAGACTGTGGGGGTGGCCAAGGTTTTGATTGCCCCTCCTGGCTATTTATATC 480	421 CTGGTGAGCTCGGGTTCTGGGCGTGGCTTTGCTCCCCTCTGGCCTTATATATC 480 481 CTGGTACCTGTAGTCTGCACCTTTGACGCATCCGAGGCCTTAGACCACC 540 481 CTGGTACTGTAGTCTGCACCTTTGACGCTTTGACGCGGCCTTACACCAC 540 481 CTGGTACTGTAGTCTGCACCTGCAGCTTTGACCGAGCGGGGCNTTACACCAC 540	541 ATCCTCATGGGCATCTACTTGTGCTTGGGCTCAGCAGTGGTGGCATCTTCTATTGCCTC 600 541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCNNNNNAGTGTTGGCATCTTCTATTGCCTC 600 601 ATCCACCGCAGGTCAAACGAGCAGCACGCACTGGACCAATACAAGTTGCGACAGGCA 660 601 ATCCACCGCCAGGTCAAACGAGCACAAGCAAGCAATACAATACAAGGCA 660	61 AGCATCCACTCCAACCATGGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 61 AGCATCCACTCCAACCATGTGGCCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG 61 AGCATCCACTCCAACCATGTGGCCGGGGACTGATGAAGCNATGCCTGGTCGTTTCCAGGAG	721 CTGGACAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGT		01 ATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAAGTTGGGAAGGTGACTCGAATG	961 TGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCACATT 1020 1021 CTGGATGCCAGAGTCCCCGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGG 1080 1021 CTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCTTGCTTG		

8 S

For

```
Contact: Genoscope
Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 9106 EVRY: cedex - France
BP 191 9106 EVRY: cedex - France
Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 6847.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSOBAGO28ZC10_CSO2667_l&cluster=6847.r.
Contact : Feng Liang Email: filang@lifetecch.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSOBAGO28ZC10_CSO2667_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          252 GCACTGGCGCACCGGTGCCACCTTCTGCAGGTATTTGGGCTCCTCCTTTTTGCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTTTTTTGCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCACTGGTGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGGATAGTGCTGGCACTGGTGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGGTTGTGGGCGAGCTTTGCTCCCCTCTGGCCTATTTATATCCTGGTACCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTCAAACGAGCAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCAAGCATCCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTGTCTCCATCCTGACCCTCTGGCACTGGGACGCTACCTCCTCATTGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cressiriereseceresechecricececereresecrativarareceseracerer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTCTGCACCTGCAGCTTTGACCGCATCCGAGGCGGCCTTTACACACCACCATCCTCATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTCATCCACCGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATCTACTTTGTGTTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTCATCCACCGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACCATGTGGCCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTCAAACGAGGAGCACAGGCACTGGACCAATACAAGTTGCGACAGGCAAGCATCCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 13; Length 997;
   Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67.1%; Score 798.6; DB 13 98.7%; Pred. No. 6.9e-193;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Sim
Matches 823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               495
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \stackrel{\circ}{\sigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BX348812 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA COT 05-NORMALIZED Homo sapiens CDNA COT 25-NORMALIZED Homo sapiens CDNA EX348812 GI:30379347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                 420
                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCCACCGCCAGGTCAAACGAGCAGCACGACTGGACCAATACAAGTTGCGACAGGCA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST.

Homo sapiens (human)

Homo sapiens

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 997)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
TITACTICCAAITCIGICICCAICCICACCCICIGICACATIGCICIAGGACGCIACCIC
                                                                                                                          crcarrecccacccraagcrcrrrccccaggrrrrcagrgccaagggarcgrgcra
                                                                                                                                                                                                CTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTTGGCCTATTTATATC
                                                                                                                                                                                                                                          541 ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGCGTGGGCGTCTTCTACTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661 AGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                             481 Tricineccactricicaccriciacaccririna acciana con acciana con con a tricina con a tricina con a tricina con a tricina con a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a tricina a 
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCTCATGGGCATCTACTTTGTGCTTGGGCTCAGCAGTGTTGGCATCTTCTATTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTGCGACCACGCAGACCCTGGAAGGTGATTTCGTCAGAAGCTGGGGGCCAGGGCATTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTAAAGGAGCCAGAAGACCTCCGGATTCTTCATCGGAATTTGGGAAGGTGACTCGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           credaceccadescretricaceaetaetacacarecrecrecraceaetaecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cradacadedederrecercaagaggecedagegagagarrrearergageceagreagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841 AAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 Aaggcagcicaacagarcgcagagagaagccriccagaagrocarcgcaaggccccgggaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901 Acrecadadorroccadadoccadadareccoarcadagricogdadoroccorare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTTTTGCTGTGTTCCTCTGCTTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         recrirede a figure de contra de contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del la contra della                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGGCTCCATTTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTA 1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141 TATGGCTCCATCCTGAAACGCGGGCCACAGAGTTTCCGCCGGTTCCATTA 1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601, 7
                                                                                                                                 361
                                                                                                                                                                                            421
                                                              361
                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 4
BX348812
                                                                                                               g
                                                           ò
                                                                                                                                                                                         à
                                                                                                                                                                                                                                          dd
                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

2 251

Gaps 2

Indels

.. თ

311

74

134 371 194 431 254 491

314 551 374 611 434 671 494 731 554 791 614 792 CCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAACACAGCAAGAGGTAA 851

732 555

ò g ò

REFERENCE AUTHORS

	Db 572 GCAGATGGCAGAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAATTAAAGGGC 513 Qy 912 CAGAAGACTCCGGATTCTTCATCGGAATTTGGGAAGCTGACTCTGTTTTGCTGT 971 Db 512 CAGAAGACTCCGGATTCTTCATCGGAATTTGGGAAGCTCGATTTTGCTGT 453 Qy 972 GTTCCTCTGCTTTGCCCTGAGCTACATCCTTTGTTGTTCTTTTTGTTTTTTGCTGT 453 Qy 972 GTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTTTGTTGTTCTTTGTTGTTTTTGCTGT 1031 Db 452 GTTCCTCTGCTTTGCCCTGAGCTACATCCCCTTTTGTTGTTCTTGTTCTTGTTGTTGTTGTTGTTG		Invitrogen. This sequence belongs to sequence cluster 6847.r For more information about this cluster, see http://www.genoscope.cns.fr/cgi-bin/cluster.cgi?seq=CSOBAKOSSDEOINM 1£cluster=6847.r. Contact : Feng Liang Enail : fliang@lifetech.com URL : http://tullengach.invitrogen.com/ InvitroGen Corporation 1600 Farada Avenue Genoscope sequence ID : CSOBAKOSSDEOINMI. Location/Qualifiers 1.903 /organism="Homo sapiens" /mol_type="mRNA" /mol_type="mRNA" /tissue type="mRNA" /tissue type="mRNA" /tissue type="mRNA" /clone_ID="CSODIO29YEIR" /clone_ID="Homo sapiens PLACENTA COT 25-NORMALIZED"
	RESULT 5 CD367121/C CD367121 CD367121 CD367121 CD367121 CD367121 ACCESSION U1-H-FT2-bjp-1-20-0-UI.S1 NCI CGAP FT2 Homo sapiens CDNA clone ACCESSION U1-H-FT2-bjp-1-20-0-UI 3', mRNA sequence. ACCESSION CD367121.1 GI:31151211 KEYWORDS CD367121.1 GI:31151211 CD367121.1 GI:31151211 KEYWORDS CD367121.1 GI:31151211 KEYWORDS CD367121.1 GI:31151211 KEYWORDS CD367121.1 GI:31151211 KEYWORDS CD367121.1 GI:31151211 KEYWORDS CD367121.1 GI:31151211 KEYWORDS CD367121.1 GI:31151211 KEYWORDS COGAP FT2 Homo sapiens CD367121 CCGAP FT2 Homo sapiens CD367121 AMMINIALIS BLANCARA CCGAP FT2 Homo sapiens CCGAP FT2 Homo sapiens CCGAP FT2 Homo sapiens CCGAP FT2 Homo sapiens CCGAP FT2 Homo sapiens CCGAP FT2 Homo sapiens CCGAP FT2 Homo sapiens CCGAP FT2 Homo sapiens CCGAP FILE AMMINIALIS FILE THE CGAP FT2 Homo CCGAP FILE THE CCGAP FILE	war i i i i i i i i i i i i i i i i i i i	Research, 6:791-806, 1996. The tissue was provided by Dr. Gary W. Hunninghake of the University of Iowa. TAG_ISBUE-Hunn Lung Aveolar Macrophage

```
492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 242
                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CD365430 721 bp mRNA linear EST 29-MAY-2003 UI-H-FT2-bjj-1-21-0-UI.sl NCI CGAP_FT2 Homo sapiens CDNA clone UI-H-FT2-bjj-1-21-0-UI 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  942 TGGGAAGGTGACTCGAATGTGTTTTGCTGTGTTCCTCTGCTTTGCCCTGAGCTACATCCC 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCCGGGTGGTCCACATGCT 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGGCCCCGGAGTTTCCATAG 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1062 TECTECCARCCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAA 1121
/note="1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand oDNA was digested with Not I and cloned into the Not I and ECOR V sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                           ATCCAGGITGCGGCAGGCAAGCATCCACTCCAACCATGTGCCAGGGACTAATGAGGCCAA 698
                                                                                                                                                                                                                                                               761
                                                                                                                                                                                                                                                                                                     638
                                                                                                                                                                                                                                                                                                                                        821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAAGGGGCCCCGGAGTTTCCATAG 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Gary W. Hunninghake, U of I
cDNA Library preparation: Dr. M. Bento Soares, University of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
                                                                                                                                                                                       ATACAAGTTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGAGGCCAT 701
                                                                                                                                                                                                                                                                                                                                                                            578
                                                                                                                                                                                                                                                                                                                                                                                                                  881
                                                                                                                                                                                                                                                                                                                                                                                                                                                    577 GGGAGACCAGATCAGCAGCAAGAGAGCTAAGCAGATGGCAGAAAAGCCCTCCAGAAGC 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              517 AICTGCCAAAGCCCAAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAAATT 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397 chichrachechandaricresandechasariccasserecessesses 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         337 TGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCCATGCAGCCATGAA 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 721) NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                 GCCTGGTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          882 ATCTGCCAAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATT
                                                                                                                                                                                                                                                                                     GCCTGGTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGAT
                                                                                                                                                                                                                                                                                                                                        TTCATCTGAGCCAGTCAGTGCTGCCACCACCCAGACCCTGGAAGGGGGACTCATCAGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        457 TGGGAAGGTGACTCGAATGTGTTTTTGCTGTTCTTCTCTTTGCCCTGAGCTACATCCC
                                                                                                                                                                                                                                                                                                                                                                            637 TTCATNTGAGCCAGTCAGTGCTGCCACCANCCAGACCCTGGAAGGGGGACTCATCAGAAGT
                                                                                                                                                     Gaps
                                                                                                                                                     ;
0
                                                                                                           44.7%; Score 532; DB 13; Length 903; 97.8%; Pred. No. 1e-124; Live 0; Mismatches 12; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CD365430
CD365430.1 GI:31149520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tumor Gene Index
Unpublished (1997)
                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1182 GCTCCATTAG 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCCATTAG 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                       Query Match
Best Local Similarity
Matches 538; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1002
                                                                                                                                                                                                                           757
                                                                                                                                                                                                                                                                 702
                                                                                                                                                                                                                                                                                                                                        762
                                                                                                                                                                                                                                                                                                                                                                                                                  822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CD365430/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                         DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                       ò
                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
/documents of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of control of contr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CD366881 173-bjp-k-21-0-UI.sl NCI_CGAP_FT2 Homo sapiens CDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999 CCCCTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCGGGGTGGTCCACAT 1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1119 GAACCGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAGAGGGCCCCGGAGTTTCCA J178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      542 AGCATCTGCCAAAGCCAGCCAATTAAAGGAGCCAGAAGAGATCCTGCATTCTTCATCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          302 GAACCGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGCCCCGGAGTTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     699 CATGCCTGGTCGTTTCCAGGAGCTGGACAGCATGGTTAGCATCAGGAGGACCCAGTGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               759 GATTICATCIGAGCCAGICAGIGCTGCCACCCCAGACCCTGGAAGGGGACTCATCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATITICATICIAGAGCCAGTCAGTGCTGCCACCACCACCAGAA-GGGAA-GGGACTCATCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                939 ATTIGGGAAGGIGACICGAAIGIGITTIGCIGIGITCCICTGCTTIGCCCTGAGCTACAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               362 GCTTGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  819 AGTGGGAGACCAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602 AGTGGGAGACCAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 879 AGCATCTGCCAAAGCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccccrrcrrdcrdcrcracarrcrdgardccagagrccaggcrcccgggrggrggrccacar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1059 GCTTGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTGTGCTATGCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa Clone Distribution: Distribution information can be found a http://genome.uiowa.edu/distribution/cgap.html Seg prime: Ml3 FORWARD POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 721;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue type="Aveolar Macrophage"
/dev stage="Adult"
/lab_host="DH10B (Life Technologies)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 481; DB 14;
Pred. No. 9.8e-112;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/clone="UI-H-FT2-bjj-l-21-0-UI"
                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40.4%;
ilarity 99.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1179 TAGGCTCCATTAG 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGGCTCCATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CD366881/c
LOCUS
DEFINITION
```

```
Unpublished to the control of Sequencage Genoscope Centre National de Sequencage Genoscope - Centre National de Sequencage Genoscope - Centre National de Sequencage Genoscope - Centre National Sequence Del 1919 19106 EXPRY cedex - Franch Fr. Web : www.genoscope.cns.fr Inbrary was constructed by Life Technologies, a division of Inbrary was constructed by Life Technologies, a division of Inbrary was constructed by Life Technologies, a division of the Library was constructed by Life Technologies, sequence cluster 6847.r For more information about this cluster, see http://www.genoscope.cns.fr for cgiplegelSpD129BC09QPl&cluster=6847.r. Contact : Feng Liang Email : flang@alifetech.com.URL : Feng Liang Email : flang@alifetech.com.URL : http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID : CSODI029BC09QPl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BX336527
BX316527 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSODI029YE18 5-PRIME, mRNA sequence.
                   CGGGTGGTCCACATGCTTGCTGCCACCTCACCTGGCTCAATGGTTGCATCAACCCTGTG 1104
                                                                                                                                         1105 CTCTATGCAGCCATGAACCGCCAATTCCGCCAAGCATATGGCTCCATTTTAAAAAGAGGG 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 TATGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGAGCACCGTGGGCAATGTGCTC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 ACCCTACTGGCCTTG-GCCATCCAGCCCAAGCTCCGTACCCGATTC--AACCTGCTCATA 177
                                                       379 CGGGTGGTCCACATGCTTGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCTGTG 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    165 TATGITGCAGTTAGCTGGGGGGTGGTGGTGGCTGTGACAGMACCGTGGGCAATKTGYTC 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178 GCCAACCTCACACTGGCTGAT...--CTCCTCTACTGCACGCTC---CTTCAGCCCTTCT 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens Eukaryota; Marazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Metheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1201) 1. (bases 1 to 2010) 1. (bases 1 to 1201)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            105 GGAAMAGCICTGTACGCCAAYTTCTCCTGCTACCTATGGAGTCTGTGCTCGGGCTAWCGT
                                                                                                                                                                             5 GGAACAGCICIG-ACGCCAACTICICCIGCTACC--AIGAGICIGIGCI-GGGCIAICGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38.7%; Score 460.6; DB 13; Length 1201; 77.7%; Pred. No. 2.2e-106; Live 62; Mismatches 96; Indels 37;
                                                                                                                                                                                                                                                                     CCCCGGAGTTTCCATAGGCTCCATTAG 1191
                                                                                                                                                                                                                                                                                                                                259 ccccedagiriccaradecrecariás 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BX336527
BX336527.1 GI:30341523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 77.7
Matches 678; Conservative
                                                                                                                                                                                                              319
                                                                                                                                                                                                                                                                         1165
                             1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
BX336527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                             S
S
S
                                                                                                                               δ
                                                                                                                                                                                             Бþ
                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers

Location/Qualifiers

Location/Qualifiers

Lorder Sapiens"

| organism="MRNA"
| wol_type="mRNA"
| /db xref="taxon:9606"
| /clone="un-FT2-bip-k-21-0-UI"
| /tissue_type="Awolar Macrophage"|
| /lab host="DH10B (Life Technologies)"|
| /lab host="DH10B (Life Technolog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCTGAGCTACATCCCCTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCC 1044
                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Gary W. Hunninghake, U of I
CDA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
http://genome.uiowa.edu/distribution/cgap.html
Seq primer: Mi3 FORWARD
POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                745 GGACCCAGTGAGGGGATTTCATCTGAGCCAGTCAGTGCTGCCACCCAGACCCTGGAA 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617 - GGGACTCATCAGAAGT-GGAGACCAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAG 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAAGCCCTCCAGAAGCATCTGCCAAAGCCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCG 924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         925 GATICITCAICGGAATITGGGAAGGIGACICGAATGIGITTTGCIGTGCTCCTCTGCTTT 984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryotzi, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

1 (bases 1 to 736)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            805 GGGGACTCATCAGAAGTGGGAGACCAGATCAACAGCAAGAGAGCTAAGCAGATGGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       685 AGGACTGATGAGGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736 AGGACTGATGAGNCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 736;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 470; DB 14;
Pred. No. 6.4e-109;
0; Mismatches 1;
UI-H-FT2-bjp-k-21-0-UI 3', mRNA sequence.
                                CD366881
CD366881.1 GI:31150971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39.5%;
                                                                                                                     Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                       Tumor Gene Index
Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               503; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Rest Local Similarity
                                                                                           EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    985
                             ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
```

d

Db

8

ò

qq

Dp à g

ò

g

ò

δ g ò Dp

à g δ 셤 ò g à g ò 임

```
CD365279 700 bp mRNA linear EST 29-MAY-2003 UI-H-FT2-bjj-k-21-0-UI.S1 NCI CGAP_FT2 Homo sapiens cDNA clone UI-H-FT2-bjj-k-21-0-UI 3', mRNA sequence.
CD365279 GI:31149369
EST.
RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH Heubnerweg 6, D-14059 Berlin, Germany Tel: +49 30 32639 101
Fax: +49 30 32639 111
www.rzpd.de
This clone is available royalty-free from RZPD;
contact RZPD (clone@rzpd.de) for further information. Seq primer: Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         239 AACCTCACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 TATGTTGCAGTTAGCTGGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          179 Acceracrescerrescearceascecaasceceracesaarreaacerscrearasce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299 TACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTATTTGGGCTCCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITGCCTCCAATTCTGTCTCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359 riridecrecaarrerererecarecreaecererecererecereaeceres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    419 CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATIGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGTGGAACCAGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119 TATGTTGCAGTTAGCTGGGGGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 ACCCIACTGGCCTTGGCCATCCAGGCCCAAGCTCCGGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 AACCTCACACTGGCTGATCTCCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36.8%; Score 438; DB 13; I
llarity 100.0%; Pred. No. 7.8e-101;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGTGAGCACCTGGGTT 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      creercaecaccreeerr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Simil
Matches 438; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
CD365279/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E. 1. Chases I to 463.

E. 1. Chases I to 463.

S. Ebert.L., Heill,O., Hennig,S., Neubert,P., Partsch,E., Peters,M., Radelof,U., Schneider,D. and Korn,B.

Human Unigeneset - RZPD3

L. Unpublished (1203)

Contact: Ina Rolfs

RZPD Deutsches Resourcenzentrum fuer Genomforschung GmbH

Im Neuenheimer Feld 580, D-69120 Heidelberg, Germany

RZPD; IMAGQ998P215199.

RZPD; IMAGQ98P215199.

RZPDIB; I.M.A.G.E. CDNA Clone Collection;
Human Unigeneset - RZPD3 (RZPDIIB NO.972)

http://www.rzpd.de/CloneCardafogi.
bin/showLib.pl.cgi/response?libNo-972 Contact: Ina Rolfs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           496 bp mRNA linear EST 04-FEB-2003
BX097926 NCI CGAP CLL1 Homo sapiens cDNA clone IMAGp998P215199 ;
IMAGE:2108420, mRNA sequence.
  285 GCCAACCTCACGACTGTCGTCACTCTAATGCACGCTCTTTTAGCCTTTTTC 344
                                                                      281
                                                                                                              404
                                                                                                                                                                                                                                                                                 524
                                                                                                                                                                                                                                                                                                                                                                                                                516
                                                                                                                                                       282 GGTATTTGGGCTCCTCCTTTTTGCCTCCAATTCTGTCTC----CATCCTGACCCTCTGCC 337
                                                                                                                                                                                                405 GGTATTTGGGCTCCTCMTTTTTGCCTCCAATTMTGWCTCGCATCCTGTACCMTCTGACMT 464
                                                                                                                                                                                                                                           338 TCATCGCACTGGGACGCTACCTCCTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCA 397
                                                                                                                                                                                                                                                                                                                            GTGCCAAGGGGATAGTGCTGGCACTGGTGAGCACCTGGGTTGTGGGGCGTGGCCAGCTTTG 457
                                                                                                                                                                                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                                                                                                                                                                                    645 AICCGAGGMCGGSCTTACACCACCATCCTCATAGGKYATYTACTTTGTGCTTTGGCTCAS 704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      517 ATCCGAGGCCGGCCTTACACCCATCCTCAT-GGCCATCTACTTTGTGCTTGGGCTCAG 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     576 CAGTGTTGGCATCTTCTATTGCCTCATCCACCGCCAGGTCAAACGAGGAGCACAGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACCAATACAAGTIGGGACAGGAAGCATCCACTCCAAMCATKIGGCCAKGACTGATGA 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGATTTCATCTGAGCCAGTCAGTGCTGCCACCACCCAGACCCTGGAAGGGGACTCATC 815
                                                                                                                                                                                                                                                                   465 AMATWGWAATGGGAMGATAAMTCCTAATTGCAMAMMCTAAGATTTTTWMYCAAGTTTTCA
                                                                                                            525 GIGCCAAGGGKATAGTGCTTGCACTKGTGAGMACCTKKGTTGTGGGCGTGGCCAGCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                CTCCCCTCTGGCCTATTTATATCCTGGTACCTGTAGTCTGCACCTGCAGCTTTGACC-GC
                                                                      230 CTGTGGACACCTACCTCCAC----CTGCACTGGCGCACCGG---TGCCACCTTCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACCAATACAAGTTGCGACAGGCAAGCATCCACTCCAACCATGTGGGCCAGGACTGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 816 AGAAGTGGGAGACCAGATCAACAGCAAGAGAGC 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGARTGCKTTWCAAATAAMARWATAGAGCTAGC 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BX097926.1 GI:27829067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                            398
                                                                                                                                                                                                                                                                                                                                                                                                                458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
BX097926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
```

q

à a ð

ò

ö

Gaps ö 118 120 178 180 238 240 298 300 358 360 418 420

```
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                         ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="Aveolar Macrophage"
/few stage="Aveolar Macrophage"
/dev stage="Aveolar Macrophage"
/dev stage="Aveolar Macrophage"
/dev stage="Aveolar Macrophage"
/dove="Index Macrophage"
/clone_lib="NCI_CGAP_FT2"
/note="Organ: Lung, Vector: pT773-Pac (Pharmacia) with a modified polylinker; Site 1: ECOR I; Site 2: Not I;
NCI_CGAP_FT2 is a subtracted down library constructed from a pool of 81 RNA samples from Alveolar Macrophages
challenged with different treatments. The library was subtracted according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. The tissue was provided by Dr.
Gary M. Hunninghake of the University of Iowa.
TAG_IISSUE=Human Lung Aveolar Macrophage
TAG_ESEQ=GGCCATGCG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1078 TGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAA 1137
                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
Email: gapbs-remeal.nih.gov
Tissue Procurement: Dr. Gary W. Hunninghake, U of I
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
DNA Sequencing by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
http://genome.uiowa.edu/distribution/cgap.html
POLYAAYES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCTGGACAGCAGGTTAGCATCAGGAGGACCCCAGTGAGGGGA-NTCATCTGAGCCAGTC 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             778 AGTGCTGCCACCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAGATCAAC 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCAAGAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCCAG 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463 AIGIGITITIGCTGTGTTCTCTCTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTGCTAAC 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           583 AGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCCAGAAGCATCTGCCAAAGCCAGG 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       523 CCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTNATCGGAATTTGGGAAGGTGACTCGA 464
                                         Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia; Butheria, Primates, Catarrhini, Hominidae, Homo. I (bases 1 to 700)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   641 AGT-CTGCCACCACCCAGACCCTGGAA-GGGACTCATCAGAAGTGGGAGACCAGATCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            718 GAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGAGGGGATTTCATCTGAGCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         898 CCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAAGGTGACTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        958 ATGIGITITIGCIGIGITICCTCTGCTTIGCCCTGAGCTACATCCCCTTCTIGCTGCTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343 TGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGCCATGAACCGCCAATTCCGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 700;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 436; DB 14;
Pred. No. 3.1e-100;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                / organism="Homo sapiens"
/organism="Homo sapiens"
/organism="RNA"
/db_xxef="teaxon:9606"
/clone="UI-H-FT2-bjj-k-21-0-UI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 98.9%;
Matches 469; Conservative C
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                  Tumor Gene Index
Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            700
  SOURCE
                                                                                                                 AUTHORS
TITLE
                                                                                            REFERENCE
                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

The second second

```
Email: mmpratt@uga.edu
Library constructed by Dr. Yutaka Suzuki and Dr. Sumio Sugano in
Library constructed by Dr. Yutaka Suzuki and Dr. Sumio Sugano in
the Human Genome Center, University of Tokyo Institute of Medical
Science, tissue and RNA were prepared in the Department of Large
Animal Medicine, University of Georgia; sequencing done in the
Laboratory for Genomics and Bioinformatics, University of Georgia.
Sequence ends have been trimmed to exclude vector and regions below
Phred quality 16. Three-prime sequences are presented as their
reverse complement and have been trimmed to exclude polyA.
Seq primer: Sugs (CTTCTGCTCTAAAAGCTGCG).
                                                                                                                                                                                 EST 04-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa, Chordata, Craniata, Vertebrata; Euteleostomi; Mammalia; Eutheria, Perissodactyla; Equidae; Equus.

1 (bases 1 to 621)
Vandenplas, M., Cordonnier-Pratt, M.-M., Suzuki, Y., Sugano, S., Moore, J.N., Liang, C., Sun, F., Sullivan, R., Shah, M. and Pratt, L.H.
An EST database from equine (Equus caballus) stimulated peripheral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 TATGTTGCAGTTAGCTGGGGGGGTGGTGGTGGCTGTGACAGGCACCGTGGGCAATGTGCTC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 ATGTGGAACAGCTCTGACGCCAACTTCTCCTGCTACCATGAGTCTGTGCTGGGCTATCGT 60
                                                                                                                                                          CD470995 621 bp mRNA linear EST 04-JUN-2
LeukoSS_3_D04.g1_A027 Stimulated peripheral blood leukocytes SS
Equus caballus cDNA clone LeukoSS_3_D04_A027 5', mRNA sequence.
CD470995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         115 ATGTGGAACAACTCTGATGCCAACTTCTCCTGCTACCACGAGTCTGTGCTAGGCTATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Other ESTS: Letkoss, 3 D04.bl A027
Contact: Cordonnier-Pratt MM
Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271, USA
                                               230
                           283 GCATATGGCTCCATTTTAAAAGAGGCCCCGGAGTTTCCATAGGCTCCATTAG
1138 GCATATGGCTCCATTTTAAAAGGGCCCCGGGGTTTCCATAGGCTCCATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 621;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           45; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCATGIG). XhoI excises the cDNA insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36.5%; Score 435; DB 14;
91.1%; Pred. No. 5.2e-100;
cive 0; Mismatches 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:9796"
/clone="LeukoS5_3_D04_A027"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Equus caballus"
/mol_type="mRNA"
/strain="Dartmoor Pony"
                                                                                                                                                                                                                                                                                 CD470995.1 GI:31392263
                                                                                                                                                                                                                                                                                                                                      Equus caballus (horse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             blood leukocytes
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              462; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tel: 706 542 1860
Fax: 706 583 0210
                                                                                                                                                                                                                                                                                                                                                                  Equus caballus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Si
Matches 462;
                                                                                                                                                     CD470995
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
```

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Soares, MB
Condinated Laboratory for Computational Genomics
University of Iowa
375 Newton Road, 4156 MEBRF, Iowa City, IA 52242, USA
7e1: 319 335 8250
Fax: 319 335 9565
Email: bento-soares@ulowa.edu
Tissue Procurement: Dr. Gregg Hageman
cDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa
Clone Distribution: Researchers may obtain clones from Research
Genetics (www.resgen.com) elements were found in this cDNA
sequence: 599-657, AF rich#Low_complexity (matched compliment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BM726245
UI-E-EJG-aih-k-10-0-UI.rl UI-E-EJG Homo sapiens cDNA clone
UI-E-EJG-aih-k-10-0-UI 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   534
                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACCTCCACTGTACTGGCGCACCGGCGCTACCTTCTGCAGAGTCTTTGGGCTCCTCCTC 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                   354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACCICCACCIGCACTGGGGGCACCGGIGCCACCIICIGCAGGGIAITIGGGCICCICCII 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CIGGIGAGCACCIGGGITGIGGGCGIGGCCAGCTITGCICCCCTCTGGCCTAITTAIAIC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     creerescaccioseres estas de contrata contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contrata de contr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 660)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
TACGTTGCAGTTAGCTGGGGGGGGGGGGGGGGGGGGCAGCGTGGGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITGCCTCCAATTCTGTCTCCATCCTGACCTCTGCCTCATCGCACTGGGACGCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             crearrecenecerandecrerrrecenandrirrengiecenandengeneringen
                                                                                                ACCCTACTGGCCTTGGCCCATCCAGCCCCAAGCTCCGTACCCGATTCAACCTGCTCATAGCC
                                                                                                                                                                                       Accendencedecentes de des de consecuentes de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia della della della della della
                                                                                                                                                                                                                                                                                                                                                                         ATCTCAGAGGGGGATCTCTACTGCACCTTCTCCAGCCCTTCTCGGTGGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCATTGCCCACCCTAAGCTTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol type="mkNA"
/db xref="taxon:9606"
/clone="Ul-B-EJ0-aih-k-10-0-Ul"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481 CIGGIACCIGIAGICIGCACCIGCAGC 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIGGECCCGTAGTTTGCACCTGCAGC 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               discovery
Genome Res. 6 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seg primer: M13 Reverse.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BM726245.1 GI:19047578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97044477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8889548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              475
                                                                                                     121
                                                                                                                                                                                                 235
                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                   295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
BM726245
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                           ò
                                                                                                                                                                       g
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

```
Choronom Laborates and adult"

//ab_host="DH10B (Life Technologies) (TI phage resistant)"

//alob_host="DH10B (Life Technologies) (TI phage resistant)"

//alob_host="DH10B (Life Technologies) (TI phage resistant)"

//alob_host="Organ: eys, Vector: pT773-Pac (Pharmacia) with a modified polylinker; Site 1: EcoR I; Site 2: Not I;

U1-E-E-O is a subtracted cDNA library constructed according to Bonaldo, Lennon and Soares, Genome Research, 6:791-806, 1996. First strand CDNA sprithesis was primed with an oligo-dT primer containing a Not I site. Double stranded cDNA was ligated to an EcoR I adaptor, digested with Not I, and cloned directionally into pT773-Pac vector. The oligonucleotide used to prime the synthesis of first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tags for this library are: fetal eyes, AGANTCAAGA; lens, CAGNTAGCGA; eye anterior segment, AGANTCAAGA; lens, CAGNTAGCGA; eye anterior segment, AGANTCAAGA; lens, CAGNTAGCGA; eye anterior segment, Foweal and Macular, GTCC; REE and Choroid, ACCTA. This library was created for the program, Gene Discovery in the Visual System, supported by National Eye Institute (NEI)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST 17-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; Bovidae; Bovinae; Bos.

1 (bases I to 542)
Smith, T.B.L., Grosse, W.M., Freking, B.A., Roberts, A.J., Stone, R.T., Casas, E., Wray, J.E., White, J., Cho, J., Fahrenkrug, S.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
yes, lens, eye anterior segment,
Retina Foveal and Macular, RPE and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 CTCACCTGGCTCAAAGGTTGCATCAACCCTGTGCTCTTATGCAGCCATGAACGCCAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CCAGTCAGTGCCGCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCAAGCATATGGCTCCATTTTAAAAGAGGCCCCCGGAGTTTCCATAGGCTCCATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           772 CCAGTCAGTGCTGCCACCCAGACCCTGGAAGGGGACTCATCAGAAGTGGGAGACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 Arcaacaccaacaaccraaccaarcccacacaaaaacccrccacaaaccarcrccaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 GCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTOGAATGTGTTTTGCTGTTTCCTTGCTTTGCCCTGAGCTACATCCCCTTCTTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     832 ATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAAGCCCTCCAGAAGCATCTGCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             892 GCCCAGCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATCGGAATTTGGGAAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 Actodaangrentriecrerererecrerecresecreacerecerreres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1072 CTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTGTATGCAGCCATGAACCGCCAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35.3%; Score 420; DB 12; Length 660; llarity 100.0%; Pred. No. 3.7e-96; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BM254098 542 bp mRNA linear 515432 MARC 3BOV Bos taurus CDNA 5', mRNA sequence. BM254098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ,
0
     type="fetal eyes, lens,
        optic nerve, retina, ... Choroid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM254098.1 GI:17889697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bos taurus (cow)
Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM254098
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
```

```
G60 bp mRNA linear BST 21-DEC-2000 602122233F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4279185 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /Lissue type="primitive neuroectoderm"
/lab host="DH108 (T1 phage-resistant)"
/lab host="DH108 (T1 phage-resistant)"
/loone="Organ: Drain; Vector: pDNR-LIB (Clontech); Site_1:
Sfil (ggccgcctcggcc); Site_2: Sfil (ggccattatggcc);
Double-stranded cDNA was prepared from cell line RNA. S'
and 3' adaptors were used in cloning as follows: 5'
adaptor sequence: 5'-CACGGCCATANTGGCC-3' and 3' adaptor
sequence: 5'-ATTCTAGAGGCGGAGGCGCATGAGGCT30)BN-3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480 CATGCTGCCTACCTCACCTGCCTTAATGGCTGCATCAACCCTGTGCTGCTGCAGC 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 102 ArcresAAcrecreacecraAcricrecrecracardaGregaereraGerared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60 TIATGTTGCAGTTAGCTGGGGGGTGGTGGTGGTGACAGGC-ACCGTGGGCAATGTGC 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (where B = A, C, or G and N = A, C, G, or T). Average innert size 1.65 kb (range 0.9-40 kb). 15/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 ATGTGGAACAGCTCTGACGCC-AACTTCTCCTGCTACCATGAGTCTGTGCTGGGGCTATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         162 TTATGTTGCTGAGTTAGCTGGGGGGGGGGGGGGGGCTGTGGGGCTACCGTGGGCAATGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34.9%; Score 416.2; DB 10; Length llarity 95.9%; Pred. No. 3.5e-95; Conservative 0; Mismatches 13; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Laboratories (Palo Alto, CA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4279185"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      BF667988 
BF667988.1 GI:11941883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                               CAT 1118
                                                                                                                                                                               540 CAT 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S:
Matches 492
                                                                                                                      1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                    RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                    BF667988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                  셤
                                                                                                           8
                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              Fmail: withDemail.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore 18
and -minmatch 12 options.
PCR PRIMERS
FORMARD: AGGAAACAGCTATGACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1056 CATGCTIGCTGCCAACCTCACCTGGCTCAATGGTTGCATCAACCCTGTGCTCTATGCAGC 1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone lib="WARC 3BOV"
/clone lib="WARC 3BOV"
/note="Vector: pCMV SPORT6; Site 1: Not1; Site 2: Sal1;
Library made from pooled tissue from marrow, alveolar macrophage, ovary, fetal semitendonosus muscle, and fetal longissimus muscle."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            479
Bennett, G.L., Heaton, M.P., Laegreid, W.W., Rohrer, G.A., Chitko-McKown, C.G., Pertea, G., Holt, I., Karamycheva, S., Liang, F., Quackenbush, J. and Keele, J. W. Sequene evaluation of two pooled-tissue normalized bovine cDNA libraries and construction of a gene index for cattle formers: 11 (4), 626-630 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 geccerecciedricariticade de de academente de contracadade de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracadades de contracad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAAGTGGGAGACCAGATCAACAGCAAGAGCTAAGCAGATGGCAGAGAAAAGCCCTCC 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAAGTCAGGGACCAGAGCAACAGTAAGGCAGCTAAGCAGATGGCAGAGAAAAACCCTCC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAAGCATCTGCCAAAGCCCAAGCCCAATTAAAGGAGCCAGAAGAGCTCCGGATTCTTCATC 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          936 GGAATTTGGGAAGGTGACTCGAATGTGTTTTGCTGTGTTCCTCTGCCTTTGCCCTGAGCTA 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 AGAGTTTGGGAAGGT-ACCCGGATGTGTTTTGCTGTGTTCCTCTGCTTCACCTGAGCTA 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 GGGGATTTCATCTGAGCCAGTCAGTGCTGCCACCACCCAGACCTGGAAGGAGACTCATC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GAATCAGTACAAGCTGCCCAGGCAAGCATCCGTTCCAACCATGTGGCTGGGGCACACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGAGTGGCTGCCAAGGCCAGGACTAAAGGAGCCCAGAGAGCTCAGGACTCTCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCCCCTTCTTGCTGCTCAACATTCTGGATGCCAGAGTCCAGGCTCCCCGGGGTGGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGTGTCGGTGTCTTCTATTGCCTCATCCACCAGCAGGTGAAGCGAGCAGCAGCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACCAATACAAGTTGCGACAGGCAAGCATCCACTCCAACCATGTGGCCAGGACTGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCATGCCTGGTCGTTTCCAGGAGCTGGACAGCAGGTTAGCATCAGGAGGACCCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               756 GGGGATTTCATCTGAGCCAGTGCTGCCACCACCAGGACCCTGGAAGGGGACTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420 carcecrirerrecraercaacarecresareccaassiccassecreecesserrerea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    576 CAGTGTTGGCATCTTCTATTGCCTCATCCACCGCCAGGTCAAACGAGCAGCACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 419; DB 12; Length 5. Pred. No. 5.9e-96; 0; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                                                    USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
TED: 402 762 48390
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
/tisaus_type="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BACKWARD: GTTTTCCCAGTCACGACG
Plate: 113 row: O column: 5
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match (35.2%;
Best Local Similarity 86.9%;
Matches 472; Conservative (
                                                                                                                                                                                                                                                       11282978
Contact: Smith TPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               966
                                                                                                                                                                            JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
```

g

임

δ

q

ò

d

ò

d

ò

셤 ò 셤

ò

셤

ò

	٠	579 TATION CONTRACTOR CONTRACTOR STATES STAT	575	ď
		TAICCIGGIACCIGIAGICIGGACCIGCAGCII 509	477	λŏ
	578	GCCACTGGTGAGCACCTGGGTTGTGGTGGGGGGGGGGTTTGTCCCCCTCTGGCTATTTA	522	qq
	476	G-CACTGGTGAGCACCTGGGTTGTGGGCGTGGCCAGCTTTGCTCCCCTCTGGCCTATTTA	418	δλ
	521	crccrcarreccacccraagcrrrrrccccaagrrrrcagragccaaggaragracre	462	q
	417	CTCCTCATTGCCCACCCTAAGCTTTTCCCCAAGTTTTCAGTGCCAAGGGGATAGTGCTG	358	δλ
	461	CTTTTTGCCTCCAATTCTGTCTCCTGACCCTCTGCCTCATCGCACTGGGACGCTAC	402	q
	357	CITITIGCCTCCAATTCTGTCTCCCATCCTGACCCTCTGCCTCATCGCACTGGGACGCTAC	298	õ
٠	401	CCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGTGATTTGGGCTCCTC	342	qq
	297	CCTACCTCCACCTGCACTGGCGCACCGGTGCCACCTTCTGCAGGGT-ATTTGGGCTCCTC	239	Qy
	341	CCAACCTCACACACTGGCTGATCTCCTCTACTGCACGCTCCTTCAGCCCCTTCTCTGTGGACA	282	d d
	238	CCAACCTCACACTGGTGATCTCCTCTACTGCACGCTCCTTCAGCCCTTCTGTGGACACA	179	à

Search completed: September 24, 2004, 04:48:26 Job time : 3459.33 secs

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
```

or process	On process - process scaron, assess on model	5				
Run on:	September 24, 2004, 04:48:37; Search time 133 Seconds	, 2004,	04:48:37	; Search	time 133	Seconds
			3)	ithout a	(without alignments)	_

US-10-029-436-2

2041 1 MWNSSDANFSCYHESVLGYR.....FRQAYGSILKRGPRSFHRLH 396 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1586107 seqs, 282547505 residues Searched:

1586107 Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seq length: 0 Maximum DB seq length: 2000000000

geneseqp2000s:*
geneseqp2001s:*
geneseqp2002s:*
geneseqp2003as:* A_Geneseq_29Jan04:* 1: geneseqp1980s:* 2: geneseqp1990s:* geneseqp2004s:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	(1)	m	n:	()	~	Ωι	œ	٦	o.	œ	E	_	E	ש	E	Ω.	z	ជ	ש	E	7	7	o	-	×
	7-t					D D				TGR				and			CDN		end	hun	lod		neo 1	phi	ΕŢ
ю. 1	Human	Human	Human	Human	Human	Human	Human	Human	Human	Mouse	Human	Human	Novel	Renal	Novel	Нишап	Human	Novel	Human	Novel	Human	Human	Human	Drosophil	Fruit
Description	Aaw62598	Aag77798	Aag80225	Abp95618	Abj19755	Abp81705	Abb82500	Abr62422	Aam99936	Abb82509	Aam87595	Abb89377	0	Aau18646	œ	Aam99963	Abb10174	Aau87123	Aau18292	Abj05724	Abp66761	Abu97261	22	S	Aae38154
QI	AAW62598	AAG77798	AAG80225	ABP95618	ABJ19755	ABP81705	ABB82500	ABR62422	AAM99936	ABB82509	AAM87595	ABB89377	AAU18097	AAU18646	AAU21583	AAM99963	ABB10174	AAU87123	m	ABJ05724	ABP66761	ABU97261	22	00	AAE38154
08	. 7	4	ហ	2	ø	φ	G	Ø	4	9	4	Ŋ	4	4	4	4	4	4	4	IJ	w	φ	-	4	7
Length	396	CD	a	396	σ,	σ	σ	ത	0	O)	\vdash	N	ш	ч	-	н	\vdash	ы		-	_	-	Н	634	ന
% Query Match	10	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.6	27.9	27.8	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	18.5	18.3
Score	2041	9	2041	2041	2041	2041	2041	2041	2041	1748	570	568	454	454	454	454	454	454	454	454	454	454	454	378	373
Result No.		N	m	4	S	ø	7	ω	თ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

9683	— ш	Adc35766 Drosophil	Aau09940 Drosophil	Abb60541 Drosophil	Aar11800 Human ret		8 Hamst	Humar	Aar11497 Hman dopa	0 Human	2 Human	Aab69075 Human dop	Aam51019 Human D2	5 Human	Abp81809 Human dop	Human	Abu62489 Human pit	Human	Abb04302 Hamster w
ABB59683	AAU38928	ADC35766	AAU09940	ABB60541	AAR11800	ABU62490	AAB59668	AAR05541	AAR11497	AAY01600	AAU76292	AAB69075	AAM51019	ADA83796	ABP81809	ABG73545	ABU62489	ADC86205	ABB04302
4	4	۲	4	4	7	9	7	7	7	7	4	4	'n	ø	v	v	ø	7	2
386	386	386	392	572	414	414	515	443	443	443	443	443	443	443	443	443	443	445	497
16.6	16.6	16.6		15.1	14.4		14.2	14.2			14.2				14.2				4
338	338			0	63		06	~	290	290	290	290	290	000	290	0 6 0	290	290	288.5
26	27				, t.	35	. e	34	i un	98	7	. e	o 0	0 4	4	4.5	. 4. Ε	44	45

ALIGNMENTS

AAW62598 standard; protein; 396 AA. (first entry) 07-0CT-1998 AAW62598; AAW62598

RESULT 1

G-protein coupled receptor; HNFJD15; treatment; diagnosis; infection; HIV-1; HIV-2; cancer; screening; human; 7-transmembrane receptor; Parkinson's disease; vaccine. Human 7-transmembrane receptor, HNFJD15.

Homo sapiens 15-JUL-1998. EP853125-A2.

97EP-00309347. 20-NOV-1997; Ellis C; Bergsma DJ, Sathe GM, Fuetterer WS,

(SMIK) SMITHKLINE BEECHAM CORP.

97US-00775428.

09-JAN-1997;

WPI; 1998-364650/32. N-PSDB; AAV38513. Human G-protein coupled receptor, HNFJD15 - used e.g. in treatment and diagnosis of infections e.g. by HIV-1, HIV-2 and cancers and screening of antagonistic or agonistic compounds.

Claim 15; Fig 1; 19pp; English.

This represents a human 7-transmembrane receptor, HNFJD15. HNFJD15 is a human G-protein coupled receptor and can be used in vaccines to protect amamals from infections e.g. bacterial, fungal, protozona and viral infections (especially infections caused by HYV-1 or HIV-2), cancers and Parkinson's disease. The HNFJD15 polypeptides can be used to produce antibodies which are used to treat such infections, isolate or identify close expressing the polypeptide or to purify the polypeptide. The polypeptide or to purify the polypeptide. The activating or inhibiting activation of HNFJD15. They can be used to diagnose diseases and susceptibility to diseases related to expression or activity of HNFJD15.

N

XX SS

g

ઠે

g

à g ò

ò

Db

à g ઠે d ò g

```
The present amino acid sequence represents EX33, a human inflammatory disease-related G-protein coupled receptor (GPCR). G-protein coupled receptors are important targets in therapeutic applications because they are involved in a wide variety of physiological and pathological processes. The invention comprises the use of the EX33 polypeptide and polymucleotide in the diagnosis or treatment of a neutrophil-associated inflammatory disease. The EX33 polypeptide, EX33 polymucleotide, an antibody specific to the EX33 polypeptide, and antibody specific to the EX33 polypeptide, and an antisense oligonucleotide/polymucleotide probe specific to the EX33 polymucleotide are useful in the diagnosis or treatment of neutrophil-associated inflammatory diseases, such as chronic obstructive pulmonary disease (COPD), adult respiratory distress syndrome (ARDS), rheumatoid arthritis, and inflammatory bowel diseases (e.g., Crohn's disease and ulcerative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MAR1; monoamine receptor-1; human; cytostatic; gene therapy; tumour; psychiatric disorder; transgenic animal; knockout animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 2041; DB 4;
100.0%; Pred. No. 1e-200;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LNGCINPVLYAAMNROFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INGCINPVLYAAMNROFRQAYGSILKRGPRSFHRLH 396
                                                                                        Claim 1; Page 29-30; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ġ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAG80225 standard; protein; 396
e.g. rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human MAR1 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DE10021474-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAG80225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG80225
\mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times \mathbb{E} \times 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NITLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 NETEADLIYCTELQPFSVDTYEALHWRTGATFCRVFGLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Use of an inflammatory related G-protein coupled receptor (EX33), a polynucleotide encoding it or other compounds (e.g. antibodies) in the diagnosis or treatment of a neutrophil-associated inflammatory disease,
                                                                                                                                                                                                                                                                                                                                                                                                                       1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                   1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G-protein coupled receptor; EX33; rheumatoid arthritis; neutrophil-associated inflammatory disease; Crohn's disease; ulcerative colitis; chronic obstructive pulmonary disease; COPD; adult respiratory distress syndrome; ARDS; rheumatoid arthritis; inflammatory bowel disease; human; GPCR.
                                                                                                                                                                                                                                           .;
0
                                                                                                                                             Length 396;
                                                                                                                                                                                                                                     Indels
                                                                                                                                       Score 2041; DB 2;
Pred. No. 1e-200;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human EX33 G-protein coupled receptor polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (NOVS ) NOVARTIS AG. (NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAG77798 standard; protein; 396
                                                                                                                                  100.0%; So
ilarity 100.0%; Pr
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yousefi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-MAR-2001; 2001WO-EP002462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-MAR-2000; 2000US-00518832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cooper PR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-541917/60.
N-PSDB; AAH78712.
                                                                                                                                                                                      Similarity
                                         Sequence 396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200166597-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                     Matches 396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-SEP-2001
                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ο,
                                                                                                                                                                                            Local
```

Jarai

ö

ö

Length 396; Indels 120 120 180

9

240 180

Sep

```
fragrance; receptor
 gustatory; taste;
                                                                                                                                               (NISC-) JAPAN SCI & TECHNOLOGY
                                                                                                                                                                     Mitaku S;
                                                                                                              04-AUG-2000; 2000JP-00237818.
13-FEB-2001; 2001JP-00034434.
                                                                                         30-JUL-2001; 2001WO-IB001446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                             WPI; 2002-304118/34
                                                                                                                                                                      Takeda S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
   drug development;
                                                                                                                                                                                                        N-PSDB; ABZ42892
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Simi
hes 396;
                         Homo sapiens
                                                                    28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                      laga T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \dot{\delta}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                            This invention describes a novel human monoamine receptor-1 (MAR1) gene (I) which has cytostatic activity and can be used for gene therapy. (I), and derived (anti) sense oligonucleotides, are useful in treatment and diagnosis of (I)-related diseases (possibly tumours and psychiatric disorders), for producing transgenic/knockout animals, and for recombinant expression of the protein (II) that it encodes. (II) is useful in ligand-binding studies and screening assays, also for treatment and diagnosis of (II)-related diseases. This sequence represents the human MAR1 monoamine receptor-1 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; GPCR; G protein coupled receptor; signal transduction; olfactory;
                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                   1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLIIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIXILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                             NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                      , monoamine receptor-1 gene, MAR1, useful for diagnosis and
MAR1-related diseases.
                                                                                                                                                                                                                                                                                                                                    100.0%; Score 2041; DB 5; Length 396; 100.0%; Pred. No. 1e-200; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polypeptide SEQ ID NO 46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABP95618 standard; protein; 396
                                                                                                                                                                           Disclosure; Page 4; 6pp; German
      03-MAY-2000; 2000DE-01021474
                           03-MAY-2000; 2000DE-01021474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                         WPI; 2002-011956/02.
N-PSDB; AAI68792, AAI68793
                                                                                                                                                                                                                                                                                                                                      Query Match 100.
Best Local Similarity 100.
Matches 396; Conservative
                                                                                   Boenisch H;
                                                 BRUESS M.
BOENISCH H.
                                                                                                                                                                                                                                                                                                                  Sequence 396 AA;
                                                                                                                                             New monoamine
                                                                                    Bruess M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABP95618
                                                 (BRUE/)
(BOEN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
       g
                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

```
The invention relates to a method for screening G protein-coupled receptor (GPCR) genes (ABZ42870-ABZ43216) and/or GPCR proteins (ABP95556-ABP95942) by extracting open-reading frames containing 6-8 transmembrane domains with 250-1000 amino acid residues to give a gene homologous with a known GPCR gene. The receptor proteins and encoded genes are useful for studying in vivo signal transduction mechanism and identifying targets for drug development e.g. based on olfactory and justifying targets form of agonists and antagonists by screening intinsic and extrinsic ligands as bitter taste inhibitors, taste enhancers and targrance improvers. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 LDSRLASGGPSEGISSEPVSAAȚTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLLALALQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMFGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
Database global search for G protein-coupled receptors, proteins and encoded genes for studying in vivo signal transduction mechanism and identifying targets for drug development.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 396;
                                                                                                                                               Claim 10; SEQ ID NO 46; 97pp + Sequence Listing; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 2041; DB 5; Length
100.0%; Pred. No. 1e-200;
tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH
```

ö

us-10-029-436-2.rag

```
Cytostatic; p21 pathway modulating agent; cancer; angiogenic; apoptotic; cell proliferation disorder; MP21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Belvin M, Li D, Funke RP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example; Page 121-123; 199pp; English.
                                                                                                                                                                                                                                                                             Human MP21 protein EX33 SEQ ID No 35
                                                                          ABJ19755 standard; protein; 396 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-JUL-2001; 2001US-0305017P.
10-OCT-2001; 2001US-0328491P.
15-FEB-2002; 2002US-0357452P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JUL-2002; 2002WO-US021549.
                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Friedman L, Plowman GD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (EXEL-) EXELIXIS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2003-221779/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; ABT17029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2003006990-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                          03-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-JAN-2003
                                                                                                                                          ABJ19755;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           activity.
RESULT 5
THE SULT 5
TH
```

```
The invention relates to a novel method for identifying a candidate p21 pathway modulating agent. The novel method comprises contacting an assay system, comprising a purified MP21 polypeptide (modifier of p21) or nucleic acid, with a test agent under conditions, so that but for the presence of a test agent under conditions, so that but for the and detection of test agent biased activity of the assay system. The novel method of the invention is useful for identifying a candidate p21 pathway modulating agent. The invention also includes a method for modulating the p21 pathway of a cell, and a method for diagnosing a disease e.g. cancer in a patient. The identified modulators are useful in svariety of diagnostic and therapeutic applications including angeful in a variety of diagnostic and therapeutic applications including represents an MP21 protein of the invention
Identifying candidate p21 pathway modulator, by contacting an assay system having modifiers of p21 polypeptide or gene with a test agent to provide a reference activity in system and detecting test agent-biased
```

```
ö
                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                       121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                      61 NLTLADLLYCTLLQPFSVDTYLHIHMRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                 9
                                                                                                                                                                 9
                                                                                                           1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                 1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                 61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                              Gaps
                                                              ö
Query Match 100.0%; Score 2041; DB 6; Length 396; Best Local Similarity 100.0%; Pred. No. 1e-200; Matches 396; Conservative 0; Mismatches 0; Indels 0;
```

셤 ò 임 ò

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acids. Also described: (I) an assay for the detection of a particular G protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; and (2) an isolated antibody having high specificity and high affinity or avidity for a particular GPCR. (I) can be used as GPCR modulators and in gene therapy. The antigenic peptides for GPCRs are useful in detecting an antibody against a particular GPCR, and in the production of specific antibodies. The peptides and antibodies are also useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for

Disclosure; Fig 1; 523pp; English.

autoimmune diseases.

```
240
                            240
                                                                                LDSRLASGGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                   301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                          G protein-coupled receptor, GPCR, antigenic peptide, gene therapy, or protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease, ALDS; cancer; immunological-related cell proliferative disease, autoimmune disease, ALDS; cancer; dalatedra's disease; aherosclerosis; infection; osteoarchritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; parkinson's disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia, memory loss; mental retardation; epilepsy; asthma; tuberculosis; obseity, nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AlDS, Alzheimer's disease, cancer or
                       181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                         LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                      Human G protein-coupled receptor EX33 protein SEQ ID NO:585
                                                                                                                                                                                  LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (LIFE-) LIFESPAN BIOSCIENCES INC.
                                                                                                                                                                                                                                                                                        ABP81705 standard; protein; 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-DEC-2001; 2001WO-US050107.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-DEC-2000; 2000US-0257144P.
                                                                                                                                                                                                                                                                                                                                                       04-MAR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Roush CL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-046718/04.
N-PSDB; ABZ42551.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200261087-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-AUG-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Burmer GC,
                                                        241
                                                                                       241
                                                                                                                                                                                  361
                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                         ABP81705;
                                                                                                                                                                                                                                                                         RESULT
                     유
                                                                                                                                                 g
                                                        ò
                                                                                  g
                                                                                                                 ò
                                                                                                                                                                                ò
                                                                                                                                                                                                         g
```

```
treating immune-related diseases, growth-related diseases, cell respective diseases, cell respectation-related diseases, growth-related diseases, cell respectation-related diseases, immunological-related cell proliferative diseases, or autoimmune diseases, e.g. AIDS, Alzheimer's disease, atherosclerosis, bacterial, fungal, protozoan or viral infections, catheoarthritis, osteoprosis, canner, cardiomypathy, chronic and acute inflammation, allergies, Crohn's disease, diabetes, graft versus host disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, canxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculosis, obesity, nausea hypertension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be cheed in immunoassays and immunodiagnosis. ABZ42523 to ABZ42869 encode GPCR proteins given in ABP81675 to ABP82018, which are used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKOMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G-protein coupled receptor; GPCR; antipsoriatic; antiinflammatory; antilipemic; nootropic; neuroprotective; antianemic; antiulcer; human; antiparkinsonian; antilipemic; TGR35; receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                ·.
                                                                                                                                                                                                                                                                                                                                                         Length 396;
                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 2041; DB 6; Length
100.0%; Pred. No. 1e-200;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB82500 standard; protein; 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-MAR-2002; 2002WO-US007171.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100.
Matches 396, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human TGR35 polypeptide.
                                                                                                                                                                                                                                                                                                                        Sequence 396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200277001-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
ABB82500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \dot{\delta}
```

180

9 9

Gaps

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                The invention relates to G-protein coupled receptor (GPCR) polypeptides and encoding polynucleotides selected from TGR20, TGR31, The polypeptides and nucleic acids are useful for identifying compounds for treating a TGR-associated disorder, such as psoriasis, inflammatory bowel disease, huperlipidemia, immune and blood disorders, ulcerative colitis, Crohn's disease or spleen enlargement. They are also useful for identifying cells such as kidney, liver, hypothalamus, colon, adipose, or spleen cells, for forensics and paterminty determination, diagnosing diseases and examining signal transduction. The present sequence represents a human TGR35 polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                         New G-protein coupled receptor polypeptides and polynucleotides useful for identifying compounds for treating a TGR-associated disorder, e.g. psoriasis, inflammatory bowel disease, hyperlipidemia, Parkinson's disease, anemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 NITLADLLYCTLLQPPSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 İKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 NITLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 WWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALOPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 2041; DB 6; Length 396; 100.0%; Pred. No. 1e-200; ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LNGCINPVLYAAMNROFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          orphan G-protein coupled receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Æ
                                                                                                                                                                                                                                                                       Example 1; Page 64; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABR62422 standard; protein; 396
09-MAR-2001; 2001US-00802803.
16-MAR-2001; 2001US-0276649P.
                                                                                         ۵,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 100.
Matches 396; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                             WPI: 2003-018881/01.
                                                       (TULA-) TULARIK INC
                                                                                                                                             N-PSDB; ABV73365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human hp15a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABR62422;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                           Tian H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABR62422
       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

φ

240

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence is the protein sequence of a novel human orphan g-protein coupled receptor, designated hp15a. The endogenous ligand for hp15a is likely to be a neuromodulator since the receptor is present in several regions of the human brain. The invention provides hp15a nucleic acids, vectors, host cells, antibodies, probes, antisense oligonucleotides, transgenic non-human animals, methods of isolating the receptor, methods of treating an abnormality that is associated with activity of hp15a e.g. cardiovascular or gastrointestinal disorders, and methods of determining binding of compounds to hp15a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New recombinant nucleic acid, useful for preparing a composition for treating disorders linked to human hp15a receptor e.g. cardiovascular or gastrointestinal disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 NETLADLLYCTLLQPFSVDTYLHTHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 LIAHPKLFPQVFSAKGIVLALVSTWVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                receptor; G-protein coupled receptor; cardiant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 2041; DB 6; Length 396; 100.0%; Pred. No. 1e-200; Live 0; Mismatches 0; Indels 0.
                                                                                                                                          /note= "potential N-glycosylation site"
20. .46
                                                                                                                'note= "potential N-glycosylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                        "Transmembrane domain 1"
                                                                                                                                                                                                   "Transmembrane domain 2"
                                                                                                                                                                                                                               'note= "Transmembrane domain 3"
                                                                                                                                                                                                                                            137. .158
/note= "Transmembrane domain 4"
                                                                                                                                                                                                                                                                                       "Transmembrane domain 5"
                                                                                                                                                                                                                                                                                                                    'note= "Transmembrane domain 6"
                                                                                                                                                                                                                                                                                                                              351. .373
/note= "Transmembrane domain 7"
                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 2A-C; 98pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                 19-DEC-2002; 2002WO-US040612
                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-DEC-2001; 2001US-00029436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SYNA-) SYNAPTIC PHARM CORP.
                                                                                                                                                                                                                                                                        .205
                                                                                                                                                                                                                                                                                                    .338
                                                                                                                                                                     /note= "T
57. .79
/note= "T
                                                                                                                                                                                                                 .116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                       'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Smith KE, Weinshank R;
                                                                                                                                                                                                                                                                           83.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-559173/52.
N-PSDB; ACC84331.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 396; Conserv
               Human; hp15a; rec
gastrointestinal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 396 AA;
                                                                                                                                                                                                                                                                                                                                                                          WO2003054540-A1
                                                                                                 Modified-site
                                                                                                                             Modified-site
                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                      03-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                         Domain
                                                                                                                                                                                    Domain
                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                 Domain
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
```

```
301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                      121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                        LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                               Human, mootropic, neuroprotective, cytostatic, dermatological, virucide, immunosuppressive, antihflammatory; anti-Hry, antibacterial, vulnerary; antiparkinsonian, antisickling, antianaemic, antiarthritic, cancer, antirheumatic, hepatotropic, cerebroprotective, antiinflammatory; antitheumatic, nepatotropic, cerebroprotective, antiinflammatory; antithergus, antidiabectic, antiululcer, anticonvulsant, antifungal, antiparasitic, cardiant, immune disorder, cardiovascular disorder, neurological disease, infection, nephrotropic, gene therapy, vaccine.
                           181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                     181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQB
                                                                               LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                             LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                      Human expressed polypeptide SEQ ID NO 60.
                                                                                                                                                                                                                                                                                     AAM99936 standard; protein; 404 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0189874P-
2000US-0190076P-
2000US-0198123P-
2000US-0205515P-
2000US-0209467P-
2000US-0214886F-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0215135P.
2000US-0216647P.
2000US-021680P.
2000US-0217487P.
2000US-0217496P.
2000US-0217496P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-JAN-2001; 2001WO-US001310.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0224518P
2000US-0224519P
                                                                                                                                                                                                                                                                                                                                           04-JAN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200155387-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-MAR-2000;
17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-AUG-2001
                                                                               241
                                                                                                           241
                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                 AAM99936;
                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                           RESULT 9
                                                                                                                                                                                                                                                                           AAM99936
                           ò
                                                  g
                                                                                                     임
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                   ò
                                                                                                                                                          g
                                                                                                                                                                                         à
                                                                                                                                                                                                                 g
```

```
14-AUG-2000; 2000US-0225758P.
18-AUG-2000; 2000US-0225759P.
18-AUG-2000; 2000US-0225759P.
22-AUG-2000; 2000US-0226668P.
22-AUG-2000; 2000US-0226668P.
23-AUG-2000; 2000US-0227009P.
01-SEP-2000; 2000US-0229344P.
01-SEP-2000; 2000US-023944P.
01-SEP-2000; 2000US-023944P.
01-SEP-2000; 2000US-023144P.
01-SEP-2000; 2000US-0231443P.
01-SEP-2000; 2000US-0231443P.
01-SEP-2000; 2000US-0231443P.
01-SEP-2000; 2000US-0231443P.
01-SEP-2000; 2000US-0231443P.
01-SEP-2000; 2000US-023149P.
01-SEP-2000; 2000US-023149P.
01-SEP-2000; 2000US-023199P.
01-SEP-2000; 2000US-0232399P.
01-SEP-2000; 2000US-0232399P.
01-SEP-2000; 2000US-0232399P.
01-SEP-2000; 2000US-0232399P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US - 0235836P.
2000US - 0236327P.
2000US - 0236368P.
2000US - 0236368P.
2000US - 0236369P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0246474P-
2000US-0246475P-
2000US-0246476P-
2000US-0246477P-
2000US-0246478P-
2000US-0246478P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0236802P.
2000US-0237037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0239937P.
2000US-0240960P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-SEP-2000; 2000US-0232401P
14-SEP-2000; 2000US-0233063P
14-SEP-2000; 2000US-0233064P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-SEP-2000;
21-SEP-2000;
25-SEP-2000;
25-SEP-2000;
25-SEP-2000;
26-SEP-2000;
26-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-OCT-2000;
        \;\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLERTED}}{\text{RCLERTED}}\frac{\text{RCLE
```

```
Isolated digestive system associated polypeptide for treating, preventing and/ or prognosing disorders related to the digestive system including digestive system cancers and also for testing and detection e.g.
                                                                                                                                                                                                                                                                                                                                                                                        Claim 11; SEQ ID NO 60; 509pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                          Ruben SM
2000US-0246611P
2000US-0246611P
2000US-0249207P
2000US-0249203P
2000US-0249203P
2000US-0249211P
2000US-0249211P
2000US-0249211P
2000US-0249211P
2000US-0249211P
2000US-0249211P
2000US-0249211P
2000US-0249214P
2000US-0249216P
                                                                                                                                                                   2000US-0249300P.
2000US-0250160P.
2000US-0250391P.
2000US-0251030P.
2000US-0251988P.
                                                                                                                                                     2000US-0249297P.
                                                                                                                                                                                                                   000US-0251479P
                                                                                                                                                                                                                                          000US-0251869P
                                                                                                                                                                                                                                                                                          (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                          Rosen CA, Barash SC,
                                                                                                                                                                                                                                                                                                                         WPI; 2001-465573/50.
N-PSDB; AAI99548.
                                                                                                                                                                                    01-DEC-2000; 2
05-DEC-2000; 2
05-DEC-2000; 2
06-DEC-2000; 2
08-DEC-2000; 2
08-DEC-2000; 2
                                                                              17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                     17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                                                                            17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                             17-NOV-2000;
17-NOV-2000;
                                                                                                      17-NOV-2000;
17-NOV-2000;
                                                                                                                                                                    17-NOV-2000;
01-DEC-2000;
```

The invention relates to novel genes (AA199548-AA199604) and proteins (AAM99936-AAM99936) useful for preventing, treating or ameliorating conditions e.g. by protein or gene therapy. The genes are medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification.

The nucleic acids, proteins, antibodies and (ant) agonists are useful in the nucleic acids, treatment and prevention of: (a) cancer, e.g. breast and covarian cancer and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune of disorders e.g. Addison's disease, allearyes, autoimmune haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, cardiovascular disorders such as myocardial ischaemias; (d) wound healing cratious diseases such as viral, bacterial, fungal and parasitic infections Note: The sequence data for this patent did not form part of from WIPO at ftp.wipo.int/pub/published_pct_sequences

Sequence 404 AA;

Gaps ö Indels Query Match
Best Local Similarity 100.0%; Pred. No. 1.1e-200;
Matches 396; Conservative 0; Mismatches 0;

ö

ö

Gaps . 0

38;

g

ò

음

ò

Pb Db

8

δ

Length 396; Indels 120

9

180 180 240 240

g δ 셤 8 g

```
LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAGARRATDAPSEFGKUTRMCFAVFLCPALSYIPFILLINILDARGRAPRUVHMVAANITW 360
such as psoriasis, inflammatory bowel disease, hyperlipidemia, perkinson's disease, almenia, immune and blood disorders, ulcerative colitis, Crohn's disease or spleen enlargement. They are also useful for identifying cells such as kidney, liver, hypothalamus, colon, adipose, or spleen cells, for forensics and paternity determination, diagnosing diseases and examining signal transduction. The present sequence represents a mouse TGR35 polypeptide
                                                                                                                                                                                                                                                                                  NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                  LIAHPKLFPQVFSAKGIVLALVGSWVVGVTSFAPLMNVFVLVPVVCTCSFDRMRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                             LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLMILDARVQAPRVVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human, immune; haematopoietic; immune/haematopoietic antigen; cancer; cytostatic; gene therapy; vaccine; metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immune/haematopoietic antigen SEQ ID NO:15188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                     85.6%; Score 1748; DB 6;
85.4%; Pred. No. 1.4e-170;
ive 20; Mismatches 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAM87595 standard; protein; 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JAN-2001; 2001WO-US001354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                      Query Match
Best Local Similarity 85.4
Matches 338; Conservative
                                                                                                                                                   Sequence 396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200157182-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-AUG-2001
                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAM87595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
       88333333333
                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                248
                                                                                               120
                                                                                                                                128
                                                                                                                                                                                                          188
                                                                                                                                                                                                                                                                                                                   LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                        308
                                                                                                                                                                                                                                                                                                                                                                                           301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                    68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G-protein coupled receptor; GPCR; antipsoriatic; antiinflammatory; antilipemic; nootropic; neuroprotective; antianemic; antiulcer; mouse; antiparkinsonian; antilipemic; TGR35; receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New G-protein coupled receptor polypeptides and polynucleotides useful for identifying compounds for treating a TGR-associated disorder, e.g. psoriasis, inflammatory bowel disease, hyperlipidemia, Parkinson's disease, anemia.
                                            MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGTVGTVTLLALALQPKLRTRFNLLIA
                                                                                               61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                    69 NLTLADLLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                            1LMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE
                         WWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALA1QPKLRTRFNLL1A
                                                                                                                                                                     121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                             ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                        LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                        129 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cutler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABB82509 standard; protein; 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-MAR-2002; 2002WO-US007171.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-MAR-2001; 2001US-00802803.
16-MAR-2001; 2001US-0276649P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-018881/01.
N-PSDB; ABV73374.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TULA-) TULARIK INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhao J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200277001-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mouse TGR35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-OCT-2002
                                                                                                                                                                                                                                                                                189
                                                                                                                                                                                                                                                                                                                   241
                                                          g
                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                      249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABB82509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tian H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus sp.
```

360

Æ

2000US-0186350P. 2000US-0189874P. 2000US-0190076P. 2000US-019123P. 2000US-0205515P.

18-APR-2000; 19-MAY-2000; 07-JUN-2000;

The invention relates to G-protein coupled receptor (GPCR) polypeptides and encoding polynucleotides selected from TGR20, TGR23, TGR28, TGR283, TGR341, TGR211, TGR216 and TGR79. The polypeptides and nucleic acids are useful for identifying compounds for treating a TGR-associated disorder,

Claim 53; Page 71; 87pp; English.

02-MAR-2000;

2000US-0179065P. 2000US-0180628P. 2000US-0184664P.

31-JAN-2000; 04-FEB-2000; 24-FEB-2000; 16-MAR-2000; 17-MAR-2000;

```
28-JUN-2000; 2000US-0214886P.
30-JUN-2000; 2000US-0215135P.
07-JUL-2000; 2000US-021684P.
11-JUL-2000; 2000US-021684P.
11-JUL-2000; 2000US-021684P.
11-JUL-2000; 2000US-021888P.
11-JUL-2000; 2000US-02189P.
14-JUL-2000; 2000US-02189P.
14-JUC-2000; 2000US-02289P.
14-JUC-2000; 2000US-02289P.
14-JUC-2000; 2000US-022856P.
14-JUC-2000; 2000US-022859P.
14-JUC-2000; 2000US-022856P.
14-JUC-2000; 2000US-022859P.
14-JUC-2000; 2000US-02389P.
14-SEP-2000; 2000US-02389P.
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2000; 2000US-0234274P.
25-SEP-2000; 2000US-0234997P.
26-SEP-2000; 2000US-0235484P.
27-SEP-2000; 2000US-0235484P.
27-SEP-2000; 2000US-0235834P.
29-SEP-2000; 2000US-0235836P.
29-SEP-2000; 2000US-0236369P.
29-SEP-2000; 2000US-0236369P.
29-SEP-2000; 2000US-0236369P.
29-SEP-2000; 2000US-0236369P.
29-SEP-2000; 2000US-023630P.
29-CCT-2000; 2000US-023630P.
02-OCT-2000; 2000US-0237039P.
```

```
S
                  2000US-0241787P

2000US-0241808P

2000US-0244174P

2000US-0246474P

2000US-0246477P

2000US-0246477P

2000US-0246477P

2000US-0246477P

2000US-024623P

2000US-0246524P

2000US-0246514P

2000US-0249204P

2000US-0249214P

2000US-024924P

2000US-024924P

2000US-0249297P

2000US-0249297P

2000US-0249297P

2000US-0249297P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0256719P.
2000US-0251479P.
2000US-0251856P.
2000US-0251868P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0251869P.
2000US-0251989P.
2000US-0251990P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ruben
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0254097P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Barash SC,
05-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rosen CA,
\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}
```

WPI; 2001-483426/52. N-PSDB; AAK60376.

Nucleic acids encoding human immune/hematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.

Claim 11; SEQ ID NO 15188; 3071pp + Sequence Listing; English

AAKS4951 to AAK64702 encode the human immune/haematopoietic antigen (I) amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic activity, and can be used in gene therapy and vaccine production. (I) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased

```
ö
expression by rectifying mutations or deletions in a patient's genome that affect the activity of (1) by expressing inactive proteins or to supplement the patients own production of (1). Additionally, (1) polynucleotides may be used to produce the secreted (1), by inserting the nucleic acids into a host cell and culturing the cell to express the protein. (1) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic-derived cells. AAK64703 sequences from the present invention. AAK84942 to AAK54950 and AAM3169 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         213 DQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSS 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 DOYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSS
                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               273 EVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLC 327
                                                                                                                                                                                                                                                                                                                                                                                                                        .,
0
                                                                                                                                                                                                                                                                                                                                                                 27.9%; Score 570; DB 4; Length 115; 99.1%; Pred. No. 2.9e-50; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 99.1
Matches 114; Conservative
                                                                                                                                                                                                                                                                                                                     Sequence 115 AA;
        886666666666888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

EVGDOINSKRAKOMAEKSPPEASAKAOPIKGARRAPDSSSEFGKVTRMXFAVFLC 115 61 g

ABB89377 standard; protein; 124 AA 24-MAY-2002 ABB89377; RESULT 12

(first entry)

Human polypeptide SEQ ID NO 1753.

Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatocropic; antidiabetic; antiinflammatory; antiuleer; vulnerary; anticonvulsant; antidecterial; antifungal; antiparasitic; cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder; neurological disease; infection; human; secreted protein.

Homo sapiens

WO200190304-A2

29-NOV-2001

18-MAY-2001; 2001WO-US016450.

19-MAY-2000; 2000US-0205515P

(HUMA-) HUMAN GENOME SCI

Birse CE, Rosen CA;

WPI; 2002-122018/16. N-PSDB; ABL89786 Novel 1405 isolated polypeptides, useful for diagnosis, treatment and prevention of neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal and proliferative disorders

Claim 11; SEQ ID NO 1753; 2081pp + Sequence Listing; English.

The invention relates to novel genes (ABL89449-ABL90853) and proteins (ABB89040-ABB90444) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and

14-AUG-2000; 2000US-0225268P

breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune blasorders e.g. Addisor's disease, allergies, autorimmune haemolytic anaemia, autorimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) eardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological disease e.g. cerebral anoxia and epilepsy; and (f) infectious diseases such as viral, bacterial, fungal and parasitic infectious. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from NIPO at ftp.wipo.int/pub/published_pot_sequences o; 9 1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA 60 Human; uterine motility-association disorder; uterus; pregnancy; labour; menstrual cycle; gene therapy. 1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA Gaps 61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLC 112 61 NITLADELYCTILQPESVDTYLHIXWRTGATFCRVFXLLLFASNSVSILTLC 112 0; Length 124; Indels Novel human uterine motility-association polypeptide #4. 27.8%; Score 568; DB 5; 98.2%; Pred. No. 5.2e-50; iive 0; Mismatches 2; AAU18097 standard; protein; 116 AA 2000US-0189874P. 200US-0190076P. 200US-0198123P. 2000US-0209515P. 2000US-0209467P. 2000US-0217487P. 2000US-0217496P. 200UUS-0218290P. 200UUS-0220963P. 2000US-0220964P. 17-JAN-2001; 2001WO-US001317. 2000US-0216647P. 2000US-0224519P. 2000US-0225213P. 21-NOV-2001 (first entry) Sest Local Similarity 98.2 Matches 110, Conservative Sequence 124 AA; WO200155201-A1. 19-MAY-2000; 07-JUN-2000; 28-JUN-2000; 17-MAR-2000; 18-APR-2000; Homo sapiens 02-MAR-2000; 4-AUG-2000; AAU18097; Query Match RESULT 13 AAU18097 8888888888888888 ઠે g ò 셤

```
14-AUG-2000; 2000US-022547P.
14-AUG-2000; 2000US-022547P.
14-AUG-2000; 2000US-022547P.
14-AUG-2000; 2000US-022545P.
18-AUG-2000; 2000US-022575P.
18-AUG-2000; 2000US-022575P.
18-AUG-2000; 2000US-022575P.
22-AUG-2000; 2000US-022668P.
22-AUG-2000; 2000US-022668P.
22-AUG-2000; 2000US-022668P.
22-AUG-2000; 2000US-02294P.
01-SEP-2000; 2000US-022944P.
01-SEP-2000; 2000US-023949P.
02-SEP-2000; 2000US-023949P.
03-SEP-2000; 2000US-023949P.
04-SEP-2000; 2000US-023949P.
05-SEP-2000; 2000US-023949P.
06-SEP-2000; 2000US-023999P.
06-SEP-2000; 2000
```

```
The present invention relates to the isolation of novel human uterine motility-association polypeptides, and cDNA (AAS28936-AAS28994) and genomic sequences encoding for these polypeptides. The sequences of the invention are useful in the diagnosis, treatment, prevention and/or prognosis of diseases associated with uterine motility such as pregnancy and labour, and menstrual disorders. The polynucleotide sequences of the invention are also useful in gene therapy. AAU18094-AAU18152 represent novel human uterine motility-association polypeptides. Note: The sequence data for this patent did not form part of the printed specification, but ftp.wipo.int/pub/published_pot_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGTVGTVTLLLALALQPKLRTRFNLLIA 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New nucleic acid molecules encoding 49 human secreted proteins for diagnosing, preventing, treating or ameliorating medical conditions and used as food additives or preservatives.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 454; DB 4; Length 116;
Pred. No. 2.5e-38;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 11; SEQ ID NO 73; 524pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ruben SM
             08-NOV-2000; 2000US-0246532P.
08-NOV-2000; 2000US-0246610P.
08-NOV-2000; 2000US-0246611P.
08-NOV-2000; 2000US-02496611P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-024920P.
17-NOV-2000; 2000US-0249211P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-0249264P.
17-NOV-2000; 2000US-02593P.
01-DEC-2000; 2000US-02593P.
01-DEC-2000; 2000US-025108P.
05-DEC-2000; 2000US-025108P.
06-DEC-2000; 2000US-0251868P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22.2%;
98.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-0259678P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L Similarity 98.9
87; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (HUMA-) HUMAN GENOME SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-488777/53.
N-PSDB; AAS28939.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 116 AA;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
17-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S:
Matches 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            н
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
```

ö

Gaps

```
2000US-0241786P.
2000US-0241787P.
2000US-0241808P.
                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0240960P.
2000US-0241221P.
2000US-0241785P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0246474P.
2000US-0246475P.
2000US-0246476P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0246477P.
2000US-0246478P.
2000US-0246523P.
                               06-SEP-2000;
08-SEP-2000;
08-SEP-2000;
                                                                                                                                                                 14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
14-SEP-2000;
                                                                08-SEP-2000;
                                                                                                                                                            Human; antiinflammatory; neuroprotective; immunomodulator; vulnerary; cardiovascular; cytostatic; nephrotropic; antianaemic; nephritis; immunosuppressive; kidney disorder; renal failure; hypertension; cardiovascular disorder; myocardial infarction; blood disorder; anaemia; blood coagulation disorder; electrolyte imbalance disorder; cancer; hyponatraemia; hyperkalaemia; neoplastic disorder; nephroma; autoimmune disease; inflammatory disease; reproductive system disorder; endocrine disorder; neural activity; neurological disorder; wound healing; respiratory disorder;
                                                                                                                                             Renal and cardiovascular-associated protein, Seg ID 85
NLTLADLLYCTLLQPFSVDTYLHLHWRT 88
             69 NLTLADLLYCTLLQPFSVDTYLHLXWRT 96
                                                                           AAU18646 standard; protein; 116
                                                                                                                                                                                                                                                                                                                                                                      2000US-0179065P.
2000US-0180628P.
2000US-0184664P.
2000US-0186350P.
2000US-0189874P.
2000US-0190076P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0216880P.
2000US-0217487P.
2000US-0217496P.
2000US-0218290P.
2000US-0220963P.
                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0198123P.
2000US-0205515P.
2000US-0209467P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0214886P
2000US-0215135P
2000US-0216647P
                                                                                                                                                                                                                                                                                                                                                  17-JAN-2001; 2001WO-US001359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0220964P
                                                                                                                      21-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                       WO200155328-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                    04-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                            02-AUG-2001
                                                                                                AAU18646;
                                                     g
```

(first entry)

```
Human; neoplastic disease associated polypeptide; cancer; hyperproliferative disorder; neural disorder; immune system disorder; muscular disorder; reproductive disorder; gastrointestinal disorder; pulmonary disorder; cardiovascular disorder; renal disorder; neuroprotective; cytostatic; anti inflammatory; vasotropic.
                                                           Novel human neoplastic disease associated polypeptide #16
                                                                                                                                                                                           40200155163-A1.
                                     06-DEC-2001
                                                                                                                                                                   Homo sapiens
           AAU21583;
The invention relates to novel mucleic acids and polypeptides useful for diagnosing, treating, preventing and/or prognosing disorders related to these polypeptides. The polymucleotides are especially useful in the cation polypeptides. The polymucleotides are especially useful in the include kidney disorders (e.g. real failure or nephritis).

Cardiovascular disorders (e.g. hypertension or mycardial infarction), electrolyte imbalance disorders (e.g. hyponatraemia or hyperkalaemia), electrolyte imbalance disorders (e.g. hyponatraemia or hyperkalaemia), neoplastic disorders (e.g. nephtoma or renal cell cancer), autoimmune disorders, neural activity and neurological disorders, wound healing and respiratory disorders. AAU18644-AAU18715 represent the novel human renal and cardiovascular-associated amino acid sequences of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from MIPO at: ftp.wipo.int/pub/bublished_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New polynucleotides and polypeptides, useful for diagnosing, treating, preventing or prognosing e.g. kidney, cardiovascular, blood, electrolyte imbalance or neoplastic disorders, autoimmune diseases, cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 22.2%; Score 454; DB 4; Length 116; Local Similarity 98.9%; Pred. No. 2.5e-38; les 87; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NLTLADLLYCTLLQPFSVDTYLHLXWRT 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 NLTLADLLYCTLLOPFSVDTYLHLHWRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 85; 506pp; English
                                                                                                                                                                                                                                                                                                                                                       Rosen CA, Barash SC, Ruben SM;
                                                                                                                           17-NOV-2000; 2000US-0249300P.
01-DEC-2000; 2000US-0250160P.
01-DEC-2000; 2000US-0251031P.
05-DEC-2000; 2000US-0251938P.
05-DEC-2000; 2000US-025198BP.
06-DEC-2000; 2000US-025198BP.
06-DEC-2000; 2000US-025198P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-0251869P.
08-DEC-2000; 2000US-025198P.
08-DEC-2000; 2000US-025198P.
08-DEC-2000; 2000US-025198P.
08-DEC-2000; 2000US-025198P.
                                                  2000US - 0249244P
2000US - 024924F
2000US - 0249265P
2000US - 024929P
2000US - 024929P
2000US - 024929P
2000US - 025929P
2000US - 0250391P
2000US - 0250391P
2000US - 0250391P
                                                                                                                                                                                                                                                                                                      05-JAN-2001; 2001US-0259678P
                                                                                                                                                                                                                                                                                                                              (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                 2001-488787/53.
                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-488787/
N-PSDB; AAS30167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 116 AA;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
                                                                                        17-NOV-2000; 2
17-NOV-2000; 27-NOV-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
```

```
04-FEB-2000; 2000US-0184664P.
24-FEB-2000; 2000US-0184664P.
16-MAR-2000; 2000US-0186350P.
17-MAR-2000; 2000US-0189374P.
17-MAR-2000; 2000US-0190076P.
18-APR-2000; 2000US-019137.
19-MAY-2000; 2000US-020515P.
07-UJN-2000; 2000US-0209467P.
                                                                                                                                                                                              2000US-0214886P
2000US-0215135P
2000US-0216897P
2000US-0217487P
2000US-0217487P
2000US-0217487P
2000US-0217487P
2000US-0218290P
2000US-022964B
2000US-022964B
2000US-0224519P
2000US-0224519P
2000US-0225213P
2000US-0225213P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0225270P.
2000US-0225447P.
2000US-0225757P.
2000US-0225758P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0225759P.
2000US-0226279P.
2000US-0226681P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0226868P.
2000US-0227182P.
2000US-0227009P.
17-JAN-2001; 2001WO-US001358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-AUG-2000;
```

AAU21583 standard; protein; 116 AA

RESULT 15 AAU21583

```
2000US-0239935P
2000US-0239937P
                                                                                              2000US-0240960P
                                                                                                                               :000US-0246474P
                                                                                                                                                                                                  :000US-0249210P
             14-SEP-2000; 214-SEP-2000; 214-SEP-2000; 2
                        14-SEP-2000;
21-SEP-2000;
21-SEP-2000;
                                                                                                                                                              08-NOV-2000;
08-NOV-2000;
08-NOV-2000;
                                                                                                                                                                         38-NOV-2000;
                                                                                                                                                                            08-NOV-2000;
                                                                                                                                                    8-NOV-2000;
                                                                                                                                             08-NOV-2000
                                                                                                                                                       38-NOV-2000
                                                                                                                                                                                    08-NOV-2000
                                                                                                                                                                                          17-NOV-2000
                                                                                                                                                                                              17-NOV-2000
                                                                                                                                      38-NOV-2000
                                                                                                                                                38-NOV-2000
                                                                                                                                                           38-NOV-2000
                                                                                                                                                                                       .7-NOV-2000
                                                                                                                                                                                                  .7-NOV-2000
```

```
The present invention relates to the isolation of novel human neoplastic disease associated polypeptides, and cDNA (AAS34767-AAS35050) and DNA sequences encoding for these polypeptides. The sequences of the invention are useful in the diagnosis, treatment, prevention and/or prognosis of disorders involving neoplastic disease such as hyperproliferative disorders (e.g. leukaemla, bone cancer, bladder cancer, brain stem glioma, adult liver cancer, childhood cerebellar astrocytoma, or hodgin's lymphoma). The sequences of the invention may also be useful for treating other disorders, such as neural disorders, immune system disorders, muscular disorders, such as neural disorders, gastrointestinal disorders, pulmonary disorders, cardiovascular disorders and renal disorders. The polymucleotide sequences of the invention are also useful in gene therapy. AAU21568-AAU21851 represent the novel human neoplastic disease associated polypeptides of the invention. Note: The sequence data obtained in electronic format directly from WIPO at the printed specification, but was obtained in electronic format directly from WIPO at the printed specification, but was
                                                                                                                                                                                                                                                                                                                                                                                                              Novel polypeptides and polynucleotides useful as diagnostic reagents to diagnose diseases or disorders associated with aberrant expression or activity of polypeptides, and for treating cancers, rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 22.2%; Score 454; DB 4; Length 116; Best Local Similarity 98.9%; Pred. No. 2.5e-38; Matches 87; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 11; SEQ ID NO 310; 687pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NLTLADLLYCTLLOPFSVDTYLHLHWRT
                                                                                                                                                                                                                                                                                                           Ruben SM
                                                                                08-DEC-2000; 2000US-0251856P.
08-DEC-2000; 2000US-0251868P.
08-DEC-2000; 2000US-0251969P.
08-DEC-2000; 2000US-0251999P.
11-DEC-2000; 2000US-0251990P.
11-DEC-2000; 2000US-0251990P.
                    2000US-0251988P.
2000US-0256719P.
2000US-0251479P.
                                                                                                                                                                                                                                                             (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                         Rosen CA, Barash SC,
                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-465558/50.
N-PSDB; AAS34782.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 116 AA;
05-DEC-2000;
05-DEC-2000;
05-DEC-2000;
06-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

Search completed: September 24, 2004, 08:36:35 Job time: 137 secs

NETLADLLYCTLLOPFSVDTYLHLXWRT

Ć,

```
12 ; Search time 413 Seconds (without alignments) 308.323 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                              1 MWNSSDANFSCYHESVLGYR.....FRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Published Applications AA:*

1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW PUBL.pep:*

3: /cgn2_6/ptodata/1/pubpaa/SPCT_NEW PUBL.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US07_NEW PUB.pep:*

7: /cgn2_6/ptodata/1/pubpaa/US07_NEW PUB.pep:*

7: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

9: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

10: /cgn2_6/ptodata/1/pubpaa/US09F_PUBCOMB.pep:*

11: /cgn2_6/ptodata/1/pubpaa/US09F_PUBCOMB.pep:*

12: /cgn2_6/ptodata/1/pubpaa/US09F_PUBCOMB.pep:*

13: /cgn2_6/ptodata/1/pubpaa/US09F_PUBCOMB.pep:*

14: /cgn2_6/ptodata/1/pubpaa/US09F_PUBCOMB.pep:*

15: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*

16: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*

17: /cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*

18: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*

18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1349238
5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1349238 seqs, 321558718 residues
GenCore version
Copyright (c) 1993 - 2004
                                                                                                                                                                                  September 24, 2004, 08:39:32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries
                                                                                                                        OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seg length: 0
Maximum DB seg length: 200000000
                                                                                                                                                                                                                                                                                                          US-10-029-436-2
2041
                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database :
                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                        Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		Description	Sequence 38, Appl	Seguence 2, Appli	Sequence 46, Appl	Sequence 4, Appli	Sequence 585, App	Sequence 2, Appli	Sequence 60, Appl	Sequence 22, Appl	Sequence 1922, Ap	Sequence 1753, Ap	Seguence 482, App	Sequence 85, Appl	Sequence 60, Appl	Sequence 641, App	Sequence 60, Appl
SUMMARIES		QI	US-09-826-508-38	US-09-798-710-2	US-10-343-650A-46	US-10-094-417-4	US-10-225-567A-585	US-10-029-436-2	US-10-073-885-60	US-10-094-417-22	US-10-017-161-1922	US-10-264-237-1753	US-09-764-853-482	US-09-989-442-85	US-09-764-886-60	US-09-764-875-641	US-09-764-886-60
			6	6	12	14	14		14	14		15	σι	10	10	11	12
		Query Match Length DB	396	396	396	396	396	396	404	396	310	124	116	116	116	116	116
	ako	Query Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.6	57.2	27.8	22.2	22.2	22.2	22.2	22.2
		Score	2041	2041	2041	2041	2041	2041	2041	1748	1168	568	454	454	454	454	454
		Result No.		7	٣	4	Ŋ	9	7	æ	σ	10	11	12	13	14	15

Sequence 73, Appl	7	ക	00	Н	7	Н	Н	7	Ч	N	9	Н	4	(1)	σ	о О	quence 10	- -	ednence 6	4	equence 4	equence 4	equence 3	equence 4	equence 7	equence 2	6 4,	5, App	Sequence 41, Appl
-60-SD	US-10-073-865-7	US-10-103-31	US-10-073-885-8	US-10-270-333-1	US-10-238-129-1	US-10-238-6	US-10-060-795B	US-10-157-031-7	US-10-225-5	US-10-352-684A-	US-10-29	US-09-992-238-1	US-10-436-715-	US-10-052-589	US-10-238-129-	US-10-238-667-	-951-622-1	US-10-325-93	US-10-369-4	US-10-185-99	US-10-238-129	US-10-238-6	US-10-225-567A-3	6-509-48	US-10-017-	US-10-05	US-10-054-	US-10-054-	US-10-633-438-41
12	14	14	14	14	14	14	14	14	14	15	15	10	15	13	14	14	σ	14	15	14	14	14	14	11	14	14	14	14	16
116		н	116	æ	-	Н	4	443	4	443	445	466	466	σ	Н	515	-	Ч	592	N	N	N	C	4	462	Н	н	н	-1
7		7							•		•					٦.	•					٥.	0.	o.	o.	o.	ο.	6	9
22	22	22	22	16	14	14	14	14	14	14	14	14	14	14	14	14	14	7	14	14	14	14	14	14	13		13		13
454	454	454	454	m	90		29	0	m	290	m	98	88	88	87.	287.5	286.5	286.5	286.5	85.		85.		α	83	83.	83.		283.5
16	17	18	19	20	21	22	23	24	22	5	27	28	53	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

61 NITLADILYCTLLQPFSVDTYLHIHWRIGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120 121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180 61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMFGRFQE 240 9 9 1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIA 1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVIGTVGNVLTLLALAIQPKLRTRFNLLIA Gaps .; 0 GENERAL INFORMATION:

APPLICANT: Nabil Elshourbagy

APPLICANT: Nabil Elshourbagy

APPLICANT: Nabil Elshourbagy

TITLE OF INVENTION: and Polymucleotides

TITLE OF INVENTION: and Polymucleotides

TITLE OF INVENTION: and Polymucleotides

CURRENT FILING DATE: 2001-04-05

CURRENT FILING DATE: 2001-04-05

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 38

LENGTH: 396 Length 396; 100.0%; Score 2041; DB 9; Length ilarity 100.0%; Pred. No. 1.5e-187; Conservative 0; Mismatches 0; Indels TYPE: PRT ORGANISM: HOMO SAPIENS Query Match Best Local Similarity Matches 396; Conserv US-09-826-508-38 181 d ò g ö g

o O

```
RESULT 4
US-10-094-417-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE 240
                                   300
                                                     241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                 301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDARVQAPRVVHMLAANLTW 360
                                                                                                                          301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPPILLINILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MWNSSDANFSCYHESVLGYRYVAVSWGVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 LDSRLASGGPSEGISSEPVSAATTOTLEGDSSEVGDOINSKRAKOMAEKSPPEASAKAOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 2041; DB 9;
Best Local Similarity 100.0%; Pred. No. 1.5e-187;
Matches 396; Conservative 0; Mismatches 0;
                                                                                                                                                                 361 INGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                 LNGCINPVLYAAMNROFROAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                           Sequence 1, Application US/09798710
PUblication No. US20020187947A1
GENERAL INFORMATION
APPLICANT: Jazai, Gabor
APPLICANT: Cooper, Paul Roy
APPLICANT: Youseff, Shida
TITLE REFRENCE: 4.31328A/H026
TILE REPRENCE: 4.31328A/H026
CURRENT PILING NUMBER: US/09/798,710
CURRENT FILING DATE: 2001-03-02
FRICR APPLICATION NUMBER: 6/XXX,XXX
PRICR PILING DATE: 2000-03-06
NUMBER OF SEQ ID NOS: 14
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ) ORGANISM: Homo Sapiens
US-09-798-710-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 396
                                                                                                                                                                                                                                                                  -09-798-710-2
                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 2
                                                                                                                        g
                              ò
                                                              g
                                                                                            ò
                                                                                                                                                                 8
                                                                                                                                                                                           Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             - q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

RESULT 3 US-10-343-650A-46 ; Sequence 46, Application US/10343650A

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 NITLADLLYCTLLQPPSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
100.0%; Score 2041; DB 12; Length 396;
Best Local Similarity 100.0%; Pred. No. 1.5e-187;
Matches 396; Conservative 0; Mismatches 0; Indels 0;
Publication No. US20040067499A1
GENERAL INFORMATION:
APPLICANT HAGA, TATSUTA
TITLE OF INTENTION:
FILE REFERENCE: 31671-186347
CURRENT APPLICATION NUMBER: US/10/343,650A
CURRENT FILING DATE: 2003-07-21
PRIOR APPLICATION NUMBER: JP 2000/237818
PRIOR PILING DATE: 2000-08-04
PRIOR PILING DATE: 2001-02-13
PRIOR FILING DATE: 2001-02-13
NUMBER: OF SEQ ID NOS: 694
SEQ ID NO 46
SEQ ID NO 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 4, Application US/10094417

Publication No. US20030045685A1

GENERAL INFORMATION:

APPLICANT: Tian, Hui

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

APPLICANT: Chen, Jin-Long

CURRENT FILING DATE: 2002-06-10

PRIOR FILING DATE: 2001-03-06

PRIOR FILING DATE: 2001-03-16

NUMBER: OF SEQ ID NOS: 43

SOFTWARE: Patentin Ver: 2.1

SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 INGCINPVLYAAMNROFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-343-650A-46
```

180 240 300

ö

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                  9
NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAFRVHMLAANLTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MMNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 NITLADLLYCTLLQPPSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 NLTLADILYCTILQPPSVDTYLHLHWRTGATFCRVFGLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                                                                                              181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                         LDSRLASGGPSEGISSEPVSAATIQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                               1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQE
                                                                                                                                                   181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                    301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW
                                      LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
US-10-029-436-2
Squence 2, Application US/10029436
Squence 2, Application US/10029436
Squence 2, Application No. US20030124138A1
Squence 2, Maphication No. US20030124138A1
Squence 2, Application No. US20030124138A1
Squence 3, TYTLE OF INVENTION:
TITLE OF INVENTION: Thereof
TITLE OF INVENTION: Thereof
STILE REFERENCE: 55180
CURRENT APPLICATION NUMBER: US/10/029,436
CURRENT PILING DATE: 2001-12-19
SRIOR TILING DATE: 199810-27
NUMBER: PARCHER TO NOW: 16
SOFTWARE: Patentin Ver. 2.1
SEQ ID NOS: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 2041; DB 14; 100.0%; Pred. No. 1.5e-187;
                                                                                                                                                                                                                                                                                                                                              361 LNGCINPVLYAAMNROFROAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                        361 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.
Best Local Similarity 100.
Matches 396; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-029-436-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                          21
                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                 a
a
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                          ò
                                                                        원
                                                                                                                  ò
                                                                                                                                                 g
                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 NETLADLLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                          61 NLTLADILYCTILQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIA
                                                                                                                                                                                                                                               1 MANSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                61 NITLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL
                                                                                                                                                                                                                                                                                                                                                                                                181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARIDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                      LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                   1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALAIOPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                FEATURE:
, OTHER INFORMATION: human G-protein coupled receptor (GPCR) TGR35
US-10-094-417-4
                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 396;
                                                                                                                                       Query Match 100.0%; Score 2041; DB 14; Length 396; Best Local Similarity 100.0%; Pred. No. 1.5e-187; Matches 396; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 2041; DB 14;
100.0%; Pred. No. 1.5e-187;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LNGCINPVLYAAMNROFROAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: LifeSpan Biosciences
APPLICANT: Brown, Joseph P.
APPLICANT: Brown, Joseph P.
APPLICANT: Burmer, Glanna C.
APPLICANT: Rouch, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANT FILE REFERENCE: 1920-4-4
CURRENT APPLICATION NUMBER: US/10/225,567A
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR PLING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Sequence 585, Application US/10225567A; Publication No. US20030113798A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 100.
Matches 396; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT; ORGANISM: Homo sapiens
US-10-225-567A-585
          LENGTH: 396
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US-10-225-567A-585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ਨੇ
```

```
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY: MOD RES
LOCATION: (20)..(53)
                                                                                                                                                                                                TYPE: PRT
ORGANISM: Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-017-161-1922
                                                                                                                                                                               CENGTH: 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc_feature

1 LOCATION: (7)

2 OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids

US-10-073-885-60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69 NLTLADLLYCTLLQPFSVDTYLHTHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 NITLADLLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               189 ILMGIYFVLGLSSVGIFYCLIHRQVXRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLLALAIQPKLRTRFNLLIA 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         129 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 2041; DB 14; Length 404; Similarity 100.0%; Pred. No. 1.5e-187; 06; Conservative 0; Mismatches 0; Indels 0;
                                                                                                          APPLICANT: 885-60

Sequence 60, Application US/10073885

Publication No. US20030096346A1

GENERAL INPORMATION:
TILE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE FEREBERNCE: PACOCCI
CURRENT APPLICATION NUMBER: US/10/073,885

CURRENT PILIOGATION TOWNER: US/10/073,885

FILE OF NUMBER: DATE: 2002-02-14

FILE OF SEQ ID NOS: 116

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 60

LENTTH: 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 22, Application US/10094417
Publication No. US20030045685A1
CENERAL INFORMATION:
APPLICANT: Tian, Hui
APPLICANT: Chao, Jin-Long
APPLICANT: Chen, Jin-Long
APPLICANT: Cutler, Gene
APPLICANT: Cutler, Gene
APPLICANT: Naiath Inc.
TITLE OF INVENTION: No. US20030045685A1e1 Receptors
FILE REFERENCE: 018781-008110US
361 LNGCINPVLYAAMNROFROAYGSILKRGPRSFHRLH 396
                                   361 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 LNGCINPVLYAAMNROFROAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 404
                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Simi.
Matches 396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
US-10-094-417-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  369
ò
                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       da
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

```
61 NITLADLLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 NITLADLLYCTLLQPFSVDTYLHIHWRTGAVFCRIFGLLLFTSNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 ILMGIYFVLGLSSVGVFYCLIHRQVKRAARALDQYGLHQASIRSHQVAGTQEAMPGHFQE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 LDSGVASRGPSEGISSEPVSAATTQTLEGDSSEAGGQGIRKAAQQIAERSLPEVHRKPRE 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MMNSSDANFSCYHESVLGYRYFAIIWGVAVAVTGTVGNVLTLLALAIRPKLRTRFNLLIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: mouse G-protein coupled receptor (GPCR) IGR35 US-10-094-417-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 85.6%; Score 1748; DB 14; Length 396; Best Local Similarity 85.4%; Pred. No. 2.4e-159; Matches 338; Conservative 20; Mismatches 38; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1922, Application US/10017161

Publication No. US20030143668A1

SGENERAL INFORMATION:
APPLICANT: SUVA, MAKIKO
APPLICANT: AKITAMA, VUTARA
APPLICANT: AKITAMA, VUTARA
TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTORS
TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED
CURRENT APPLICATION NUMBER: US/10/017,161

FRIOR FILING DATE: 2002-12-18
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2430
SOFTWARE: Patentin Ver. 2.1

LENGTH: 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 LNSCINPVLYAAMNRQFRHAYGSILKRGPQSFRRFH 396
CURRENT APPLICATION NUMBER: US/10/094,417
CURRENT FILING DATE: 2002-06-10
FRIOR APPLICATION NUMBER: US 09/802,803
PRIOR FILING DATE: 2001-03-09
PRIOR PELING DATE: 2001-03-16
PRIOR APPLICATION NUMBER: US 60/276,649
PRIOR FILING DATE: 2001-03-16
NUMBER OF SEQ ID NOS: 43
SOSTWARE: PALENTIN VEY: 2.1
SEQ ID NO 22
```

180

ö

OTHER INFORMATION: Variable amino acid

```
FEATURE:
LOCATION: (7)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
LOCATION: (93)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
OTHER INFORMATION: data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: SITE
1. LOCATION: (104)
2. OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-853-482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:

TITLE OF INVENTION:

TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies

FILE REPERENCE: PUZO8

CURRENT APPLICATION NUMBER: US/09/989,442

CURRENT PILING DATE: 2001-11-21

PRIOR APPLICATION NUMBER: 60/179,065

PRIOR FILING DATE: 2000-01-31

PRIOR PILING DATE: 2000-02-04

PRIOR PILING DATE: 2000-06-28

PRIOR FILING DATE: 2000-06-28

PRIOR FILING DATE: 2000-06-28

PRIOR FILING DATE: 2000-06-11

PRIOR APPLICATION NUMBER: 60/217,487

PRIOR FILING DATE: 2000-08-14

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR FILING DATE: 2000-07-11

PRIOR FILING DATE: 2000-07-26

PRIOR FILING DATE: 2000-07-26

PRIOR FILING DATE: 2000-07-21

PRIOR FILING DATE: 2000-07-11

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR FILING DATE: 2000-07-11

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR FILING DATE: 2000-07-11

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR PILING DATE: 2000-07-11

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR PILING DATE: 2000-07-11

PRIOR APPLICATION NUMBER: 60/220,963

PRIOR PILING DATE: 2000-07-11
                                                                                                                                                                      APPLICANT: Rosen et al.

TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REPERENCE: PZ06

CURRENT APPLICATION NUMBER: US/09/764,853

CURRENT FILING DATE: 2001-01-17

Prior application data removed - consult PALM or file wrapper NUMBER: PSEQ ID NOS: 939

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 482

LENGTH: 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
22.2%; Score 454; DB 9; Length 116;
Best Local Similarity 98.9%; Pred. No. 1.5e-35;
Matches 87; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 NLTLADLLYCTLLQPFSVDTYLHLHWRT 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/218,290
PRIOR FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: 60/225,757
                                                                              Sequence 482, Application US/09764853
Patent No. US20020090672A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 85, Application US/09989442 Publication No. US20030013649A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , OTHER INFORMATION: Xaa equals any of the twenty naturally occurring L-amino acids US-10-264-237-1753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: Xaa equals any of the twenty naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70 APLWPIYILVPVVCTCRWDRIQSRPYTTILMGIYFVLGLSSVGIFYCLIHRQVRAAAQAL 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     130 DQYKLRQASVHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSS 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               273 EVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSY 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190 EVGDQINSKRAKQMAEKSPPRASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSY 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        333 IPFLLLNILDARVQAPRVVHMLAANLTWINGCINPVLYAAMNRQFRQAYGSILKRGPRSF 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                    153 APLWPIYILVPVVCTCSFDRIRGRPYTTILMGIYFVLGLSSVGIFYCLIHRQVKRAAQAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          213 DOYKLROASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 NITLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLC 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NLTLADLLYCTLLQPFSVDTYLHLXWRTGATFCRVFXLLLFRSNSVSILTLC 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-10-264-237-1753

is Sequence 1753, Application US/10264237

publication No. US20040009491A1

GENERAL INPORMATION:
APPLICANT: Birse et al.
ITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REPERENCE: PAISH10

CURRENT APPLICATION NUMBER: US/10/264,237

CURRENT APPLICATION NUMBER: PCT/US01/16450

PRIOR PELING DATE: 2001-05-18

PRIOR FILING DATE: 2001-05-18

PRIOR FILING DATE: 2000-05-19

NUMBER OF SEQ ID NOS: 2876

SOFTWARE: Patentin Ver. 3.1

LENGTH: 124
                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                            Length 310;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Indels
                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                     Score 1168; DB 14;
Pred. No. 1.2e-103;
5; Mismatches 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 568; DB 15;
Pred. No. 1.8e-46;
0; Mismatches 2;
                                                                                                                                                  NAME/KEY: MOD_RES

LOCATION: (289)

SOTHER INFORMATION: Variable amino acid

US-10-017-161-1922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27.8%;
                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 94.2%;
Matches 226; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 27.8
Best Local Similarity 98.2
Matches 110; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: MISC_FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: MISC_FEATURE
                                                             LOCATION: (66)
OTHER INFORMATION:
FEATURE:
FEATURE:
NAME/KEY: MOD_RES
```

8 ద

ò 셤 g à

		-														-													-							-				٠	
00-08-14 SER: 60/226,8 00-08-22	0-07-07	3EK: 60/225,26 30-08-14	ER: 60/216,88 0-07-07	60/225,27 8-14	NUMBER: 60/251,869 2000-12-08	ER: 60	3R: 6	0-09-2 ER: 60	-6(0-08-30	8-14	9 6	60	199	60	0-20	1-17	96.2	90	و د	1-01	18-14	9-2	90	909	7 9	9-01	9-25	60/229,34 9-01	TUMBER: 60/229,345 2000-09-01	ER: 6	ER: 6	ER: 60	0 E	0-09-05	IUMBER: 60/236,367 2000-09-29	ER: 60	ER: 60	0-10-0 ER: 60	000- MBER	00-10-02
FILING DATE: APPLICATION FILING DATE:	FILING DATE	FILING DATE:	APPLICATION FILING DATE:	APPLICATION FILING DATE:	APPLICATION FILING DATE:	APPLICATION FILING DATE:	APPLICATION	FILING DATE: APPLICATION	FILING DATE: APPLICATION	FILING DATE	FILING DATE	APPLICATION FILING DATE:	APPLICATION FILING DATE	APPLICATION	FILING DATE: APPLICATION	FILING DATE:	FILING DATE:	APPLICATION FILING DATE:	APPLICATION	FILING DATE: APPLICATION	FILING DATE	FILING DATE	APPLICATION FILING DATE	APPLICATION FILTING DATE	APPLICATION	FILING DATE APPLICATION	FILING DATE	FILING DATE	FILING DATE	APPLICATION FILING DATE:	APPLICATION FILING DATE:	APPLICATION	APPLICATION	FILING DATE	FILING DATE	APPLICATION FILING DATE:	PPLICATION	PPLICATION	ILING DATE:	ATE: ION	ILING DATE:
; PRIOR ; PRIOR ; PRIOR	PRIOR	; PRIOR	; PRIOR ; PRIOR	; PRIOR ; PRIOR	; PRIOR ; PRIOR	, PRIOR	PRIOR	; PRIOR ; PRIOR	; PRIOR ; PRIOR	, PRIOR	PRIOR	; PRIOR	; PRIOR	PRIOR	PRIOR	, PRIOR	PRIOR	; PRIOR	PRIOR	; PRIOR	, PRIOR	PRIOR	; PRIOR ; PRIOR	; PRIOR	PRIOR	; PRIOR	; PRIOR	PRIOR	; PRIOR	; PRIOR ; PRIOR	, PRIOR	, PRIOR	PRIOR	, PRIOR	PRIOR	PRIOR	PRIOR	PRIOR	; PRIOR ;	; PRIOR	, PRIOR

	ER: 60/246,47 ER: 60/246,47 11.08 10.11.08 10.11.07 10.08.22 10.08.22 10.08.22 10.08.22 10.08.22 10.08.22 10.08.23 10.08.23 10.08.23 10.08.23 10.08.23 10.08.23 10.08.23 10.08.23 10.08.23 10.08.23 10.08.23	NUMBER: 60/249,208 12000-111-7 2000-111-7 2000-11-17 NUMBER: 60/249,212 2000-11-17 2000-11-17 NUMBER: 60/249,245 2000-11-17 NUMBER: 60/249,244 2000-11-17 NUMBER: 60/249,217 2000-11-17 NUMBER: 60/249,217 2000-11-17 NUMBER: 60/249,215 2000-11-17 NUMBER: 60/249,215 2000-11-17 NUMBER: 60/249,215 2000-11-17 NUMBER: 60/249,214 2000-11-17 NUMBER: 60/249,214 2000-11-17 NUMBER: 60/249,297 2000-11-17 NUMBER: 60/249,297 2000-11-17 NUMBER: 60/232,400 2000-11-17 NUMBER: 60/232,400 2000-09-14 NUMBER: 60/232,400 2000-09-14 NUMBER: 60/232,081 NUMBER: 60/232,081 2000-09-08 NUMBER: 60/232,081 NUMBER: 60/232,081 2000-09-08 NUMBER: 60/232,081 NUMBER: 60/232,081
PPLICATION ILING DATE: PPLICATION ILING DATE: PPLICATION ILING DATE: PPLICATION ILING DATE: PPLICATION ILING DATE: PPLICATION ILING DATE: ILING DATE: ILING DATE: ILING DATE: ILING DATE: ILING DATE: ILING DATE: ILING DATE:	PEPLICATION PERLICATION PEPLICATION PERLICATION PEPLICATION PEPLICATION PEPLICATION PEPLICATION PEPLIC	LICATION LING DATE LING DA
		PRIOR PRIOR

Fri

```
NAME/KEY: SITE
LOCATION: (7)
OCTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
LOCATION: (93)
OCTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEY: SITE
NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .; LOCATION: (104)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-875-641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MANSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLLALAIQPKLRTRFNLLIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA 60
                                                                   9 WANSSDANFSCYHESVLGYRYVAVSWGVVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA 68
                                                                                                                                                                                                                                                                                                                                     US-001-14-875-641

US-001-764-875-641

Sequence 641, Application US/09764875

Publication No. US20040018969A1

GENERAL INFORMATION:

APPLICANT ROSEN et al.

TITLE OF INVENTION: UNCleic Acids, Proteins, and Antibodies

FILE REFERENCE: PZ202

CURRENT PILING DATE: 2001-01-17

Prior application data removed - consult PALM or file wrapper

NUMBER OF SEQ ID NOS: 1249

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 641

LINGTH: 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 22.2%; Score 454; DB 11; Length 116; Best Local Similarity 98.9%; Pred. No. 1.5e-35; Matches 87; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 NLTLADLLYCTLLOPFSVDTYLHLHWRT 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69 NLTLADLLYCTLLQPFSVDTYLHLXWRT 96
                                                                                                                                                                                                                 69 NLTLADLLYCTLLQPFSVDTYLHLXWRT 96
                                                                                                                                                           61 NLTLADLLYCTLLOPFSVDTYLHLHWRT 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
US-09-764-886-60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                            엄
                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION: (7)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
NAME/KEX: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LOCATION: (104)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-886-60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (93)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGTVGTVLTLALALALQPKLRTRFNLLIA 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 60, Application US/09764886;
Publication No. US20030139327A9;
GENERAL INFORMATION:
APPLICANT Rosen et al.
TITLE OF INVENTION:
PILE REFERENCE: PTZ02
CURRENT APPLICATION NUMBER: US/09/764,886
CURRENT FILING DATE: 2001-01-17
Prior application data removed - consult PALM or file wrapper;
NUMBER OF SEQ ID NOS: 88
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 60
LINGTH: 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 454; DB 10; Length 116;
Pred. No. 1.5e-35;
0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 116,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
22.2%; Score 454; DB 10;
Best Local Similarity 98.9%; Pred. No. 1.5e-35;
Matches 87; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 NLTLADLLYCTLLOPFSVDTYLHLHWRT 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NLTLADLLYCTLLQPFSVDTYLHLXWRT 96
DR FILING DATE: 2000-09-08

APPLICATION NUMBER: 60/231,244

DR APPLICATION NUMBER: 60/233,064

DR APPLICATION NUMBER: 60/233,064

DR FILING DATE: 2000-09-14

DR APPLICATION NUMBER: 60/232,397

DR FILING DATE: 2000-09-14

DR APPLICATION NUMBER: 60/232,397

DR APPLICATION NUMBER: 60/232,397

DR APPLICATION NUMBER: 60/232,399

DR PILING DATE: 2000-09-14

DR APPLICATION NUMBER: 60/241,808

DR APPLICATION NUMBER: 60/241,808

DR APPLICATION NUMBER: 60/241,826

DR APPLICATION NUMBER: 60/241,786

DR PILING DATE: 2000-10-20

DR APPLICATION NUMBER: 60/241,721

DR FILING DATE: 2000-10-20

DR APPLICATION NUMBER: 60/241,221

DR FILING DATE: 2000-10-20

DR APPLICATION NUMBER: 60/231,243

DR FILING DATE: 2000-10-08

DR APPLICATION NUMBER: 60/231,243

DR FILING DATE: 2000-09-88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 98.9
Matches 87; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 13
US-09-764-886-60
          PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR PRIOR 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
```

ö

Gaps

.; 0

NAME/KEY: SITE LOCATION: (7) OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids Sequence 60, Application US/09764886
| Sequence 60, Application US/09764886
| Publication No. US20020086822A1
| GENERAL INFORMATION:
| APPLICANT: Rosen et al. |
| TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REPRENCE: PTOO2 |
| CURRENT APPLICATION NUMBER: US/09/764,886 |
| CURRENT APPLICATION NUMBER: US/09/764,886 |
| CURRENT APPLICATION AT E = 2001-01-17 |
| Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 88 |
| SOFTWARE: Patentin Ver. 2.0 |
| LENGTH: 116 |
| TYPE: PRIOR OF SEQ ID NOS: REAL OF SEQ ID NOS

```
) NAME/KEY: SITE
) LOCATION: (93)
) OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
) NAME/KEY: SITE
) LOCATION: (104)
) OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-886-60
```

දු දු

Search completed: September 24, 2004, 08:57:02 Job time : 414 secs

⁶¹ NLTLADLLYCTLLOPESUDTYLHLHWRT 88 ð 8

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

September 24, 2004, 08:00:36; Search time 43 Seconds (without alignments) 885.857 Million cell updates/sec Run on:

US-10-029-436-2 2041 1 MWNSSDANFSCYHESVLGYR......FRQAYGSILKRGPRSFHRLH 396 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283366 seqs, 96191526 residues Searched:

283366 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

PIR 78:*
1: Dir1:*
2: Dir2:*
3: Dir3:*
4: Dir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	probable hormone	le hormone	alpha-1B-adrenergi		dopamine receptor	щ		alpha-1B adrenergi		dopamine receptor	dopamine receptor	alpha-1-adrenergic	G protein-coupled	allatostatin recep	alpha-1C adrenergi	alpha-1C-adrenergi	alpha-1C-adrenergi	alpha-1C-adrenergi	d3 dopamine recept	alpha-1A adrenergi	dopamine receptor-	alpha-1A adrenergi	D3 dopamine recept		amine recepto	beta-3-adrenergic	ω	alpha-2-adrenergic	serotonin receptor
	QI	T13739	T13740	JC1525	DYXLD2	DYHUD2	A40491	DYBOD2	A45121	T25837	DYMSD2	S08146	A35375	S58868	JC7677	IS7959	865656	JN0765	865657	G01977	871323	C56849	A38731	G00013	YRTD	83	328	7	A40392	26
	DB	2	~	N	Н		N																							
	Length	1 -	-	\leftarrow	4	443	515	444	517	592	444	444	466	484	423	466	429	466	499	400	477	511	560	400	446	446	400	357	458	365
ж (ery tch	٠.		14.3	4		14.1	14.1	.14.0	14.0	m	13.9	ന	13.7	•			13.4	13.4	13.4	•	٠	13.3	13.2	13.1		٠	13.0		12.7
	COL	- 6	309	•	σ	σ	288.5	œ	86,	286.5	83	83	8	280	w	278.5	274	274	274	272.5	272	270.5	2	8	267.5	6	266	6	_	259
i	Result No.		2	m	4	ហ	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

cholecystokinin B beta 3-adrenergic serotonin receptor	dopamine receptor- alpha 2C4 adrenoce alpha-2 adrenergic	melatonin receptor serotonin receptor	serotonin receptor beta-3-adrenergic	galanin receptor - alpha-1A-adrenergi gastric CCK-A rece	alpha-1A-adrenergi gastrin/cholecysto
A46195 A53281 JS0616	D56849 A48392 I49480	S70520 T37239	T29877 T37240 A41679	JC7209 JH0447 SE0150	139369 147430
01010	0 0 0	000	200	01010	100
4 4 4 7 0 0 8 0 0	5114 458 868	635	654 683 400	394	572 547
12.7	1444	122.4	12.4 12.4 12.3	123.3	122.2
259 257 255	254 . 5 254 . 5 254 . 5	252.5	252.5 252.5 252.5	251	0 0 0 0 0 0
31) E) E) E 1 E) 4 P	36	ω ω 4. ® υ Ο	144	4 4 4 5 4 5

ALIGNMENTS

N

12;

Length 515;

104

79

262

```
Rivoigt, M.M.; Kispert, J.; Chin, H.

Nucleic Acids Res. 18, 1053, 1990

Nucleic Acids Res. 18, 1053, 1990

Aritile: Sequence of a rat brain cDNA encoding an alpha-1B adrenergic receptor.

A; Reference number: $08400; MUID:90192094; PMID:2156222

A; Accession: $08400

A; Molecule type: mRNA

A; Molecule type: mRNA

A; Cross-references: BMBL:X51585; NID:g55557; PIDN:CAA35934.1; PID:g55558

C; Genetics: 1-202, 'CC', 204-206, 'CC', 208-305, 'CC', 307-414, 'QK', 417-439, 'CC', 441-483, 'ATA', 487-A; Cross-references: BMBL:X51585; NID:g55557; PIDN:CAA35934.1; PID:g55558

C; Genetics: 377/1

C; Superfamily: vertebrate rhodopsin

C; Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A/Cross-references: EMBL.X59500, NID:g64648, PIDN:CAA42088.1; PID:g64649

C/Superfamily: vertebrate rhodopsin

C/Superfamily: vertebrate rhodopsin

C/Superfamily: vertebrate rhodopsin

C/Superfamily: vertebrate rhodopsin

C/Superfamily: vertebrate rhodopsin

C/Superfamily: vertebrate rhodopsin

Fil-31-34/Product: dopamine receptor D2 (long form) #status predicted cMAT2>

Fil-32.266-442/Product: dopamine receptor D2 (short form) #status predicted cMAT2>

Fil-32.266-442/Product: dopamine receptor D2 (short form) #status predicted cMAT2>

Fil-32.266-442/Product: ransmembrane #status predicted cMA3>

Fil-32-34/Domain: transmembrane #status predicted cMA3>

Fil-45-168/Domain: transmembrane #status predicted cMA5>

Fil-37-204/Domain: intracellular #status predicted cMA5>

Fil-37-204/Domain: transmembrane #status predicted cMA5>

Fil-37-340-428/Domain: transmembrane #status predicted cMA7>

Fil-37-3-36/Domain: transmembrane #status predicted cMA5>

Fil-37-36-36/Domain: transmembrane #status predicted cMA7>

Fil-37-36/Domain: transmembrane #status predicted cMA7>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.Martens, G.J.M.; Molhuizen, H.O.F.; Groeneveld, D.; Roubos, E.W.
PEBS Lett. 281, 85-89, 1991
A.fitle: Cloning and sequence analysis of brain cDNA encoding a Xenopus D(2) dopamine red
A.Reference number: S14827; MUID:91200321; PMID:1826663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALVSTWING-VASFAPL--WPIXILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALLSVWVLSTVISIGPLLGWK----EPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       196 IFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IVVGM-----FILSWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNPIIYPC 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----DILSSIKAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KVTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dopamine receptor D2 - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 22-Jun-1999
C;Accession: S14827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        45 AISVGLVLGAFILFAIVGNILVILSVACNRHLRTPTNYFIVNLAIADLLLSFTVLPFSAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23 AVSWGVVVA---VTGTVGNVLTILIALAIQPKLRTRFNILIANLTLADLLYCTLLQPFSVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80 TYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14.3%; Score 292.5; DB 2; 25.2%; Pred. No. 2.2e-16; ive 71; Mismatches 150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                373 MNRQFRQAYGSILK---RGPRSFHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSKEFKRAFMRILGCQCRGGRRRRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-442 < MAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Accession: S14827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               298
                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
Matches 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rat alpha 1B adrengergi
                                                                                                   probable hormone receptor 22E5.10 [similarity] - fruit fly (Drosophila melanogaster)
                                                                                                                           C; Species: Drosophila melanogaster
C; Date: 13-Aug-1999 #sequence_revision 13-Aug-1999 #text_change 17-Nov-2000
C; Accession: T1340
R; Murphy, L; Harris, D.; Barrell, B.
Submitted to the EMBL Data Library, April 1999
A; Description: Sequencing the distal X chromosome of Drosophila melanogaster.
A; Reference number: 217668
A; Accession: T13740
A; Molecule type: DNA
A; Residues: 1-572 < MUR>
A; Cross-references: EMBL: AL031765; NID: e1371523; PID: e1329906; PIDN: CAA21124.1
C; Genetics:
A; Cross-references: FlyBase: FBgn0000667
A; Introns: 218/2; 426/2
A; Note: EG: 22E5.10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Residues: 1-572 <MUR>
•Cross-references: EMBL:AL031765, NID:e1371523, PID:e1329906, PIDN:CAA21124.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLF 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PQVFSAKGIVLALVSTWVVGVASFAP----LWPIYILVPVVCTCSFDRIR-GRPYTTILM 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TSNASSIYPGR----MSAKDRRLLKMILVIFVWFVICYLPITVAKIWKSATE----VHWF 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | : | : | : | : | 337 KVTISS--GEANEPIAGRPFVVEENLAYIDDNASTDSLPISYSIRRRDQDQQPPPVDANV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEGYSDELLTIAWVAC---IVFIIVGVPGNLLTIVALSRGROTRNSTAIFIINLSCSDLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIYORRYLALMVAGTWITTFSIMIPTWRGVWGIFGLDVSIGSCSIMHDRYGRSPKEFLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----QALDQYKLRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IAAFMVPCICIVICYARIFLLVRKÄÄIRAGTAGKTNVSDVTPSSAPQHQIQAMATPKKPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        395 VLKEREKERDRDQEKVSLGRSQTQLEMGKTHGKNPITTSLRTTSFTRFSPRKSHYASMGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAKAOPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDARVQAPRVVH--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Rattus norvegicus (Norvay rat)
C;Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change 13-Aug-1999
C;Accession: JC1525; 808400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --AATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the gene encoding the PMID:8406017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 309; DB 2; Length 57
Pred. No. 1.1e-17;
3; Mismatches 180; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -MLAANLTWLNGCINPVLYAAMNRQFRQAYGSILK 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GIYFVLGLSSVGIFYCLIHRQVKRAA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R,Gao, B.; Kunos, G.
Gene 131, 243-247, 1993
A,Title: Isolation and characterization of
A,Reference number: JC1525; MUID:94010315;
A,Accession: JC1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15.1%; Scc
ilarity 22.4%; Pre
Conservative 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  alpha-1B-adrenergic receptor - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Status: translation not shown
A,Molecule type: DNA
A,Residues: 1-515 <GAO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Simi
Matches 102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   353
```

d

ò

qq

ò

g

δ

g

8 g à g

Db ઠ

ò g

ð

A; Cross-references: GB: L08610; NID: 9202624; PIDN: AAA40647.1; PID: 9202626

쉽 ò Q ò g Dp

ò g ð

8

Dp

g ò 임

à

```
R;Grandy, D.K.; Marchionni, M.A.; Makam, H.; Stofko, R.E.; Alfano, M.; Frothingham, L.; Proc. Natl. Acad. Sci. U.S.A. 86, 9762-9766, 1989
A, Title: Cloning of the CDNA and gene for a human D-2 dopamine receptor.
A, Facession: A34502
A, Molecule type: mRNA
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA>
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GRA
A, Fasiduces: 1-43 <GR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: mRNA
A;Residues: 1-241,271-443 <STO>
R;Selbie, L.A.; Hayes, G.; Shine, J.
Adv. Second Messenger Phosphoprotein Res. 24, 9-14, 1990
Adv. Second Messenger Phosphoprotein Res. 24, 9-14, 1990
A;Title: DNA homology screening: isolation and characterization of the human D2-A dopamir
A;Reference number: A37384; MUID:91000955; PMID:2144985
A;Accession: A37384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GDB:119852; OMIM:126450
A;Map position: 11q23.1-11q23.1
A;Intruons: 1.784.1, 241/3; 270/3; 380/1
C;Superfamily: vertebrate rhodopsin
C;Superfamily: vertebrate rhodopsin
C;Superfamily: vertebrate rhodopsin
C;Superfamily: vertebrate rhodopsin
C;Superfamily: vertebrate rhodopsin
C;Keywords: alternative splicing; G protein-coupled receptor; glycoprotein;
F;1-443/Product: dopamine receptor D2 (short form) #status predicted <MAT1>
F;1-443/Product: transmembrane #status predicted <TM1>
F;1-941,271-443/Product: dopamine receptor D2 (short form) #status predicted <TM2>
F;109-130/Domain: transmembrane #status predicted <TM3>
F;109-130/Domain: transmembrane #status predicted <TM3>
F;180-2174/Domain: transmembrane #status predicted <TM5>
F;21-337/Domain: transmembrane #status predicted <TM6>
F;21-337/Domain: transmembrane #status predicted <TM6>
F;21-337/Domain: transmembrane #status predicted <TM6>
F;21-327/Domain: transmembrane #status predicted <TM6>
F;21-237/Domain: transmembrane #status predicted <TM6>
F;21-237/Domain: stansmembrane #status predicted <TM6>
F;21-237/Domain: gransmembrane #status predicted <TM7>
F;21-237/Domain: gransmembrane #status predicted <TM6>
F;21-237/Domain: gransmembrane #status predicted <TM6>
F;21-237/Domain: gransmembrane #status predicted <TM7>
F;21-237/Dinding site: carbohydrate (Asn) (covalent) #status predicted
F;107-182/Disuding site: palmitate (Cys) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ior; glycoprotein; lipoprotein;
predicted <MAT1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBIP:69900)
S.; Shimizu, N.; Katagiri,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA and localization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 LTLADLLYCTLLQPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "No lectule type: mRNA, 1, Residues: 1-241, 271-443 cDEA>
1, Residues: 1-241, 271-443 cDEA>
1, Cross-references: GB:569899; NID:9240290; PIDN: AAB20571.1; PID:9240291
1, Experimental Source: retina
1, Experimental Source: retina
1, Experimental Source: retina
1, More: sequence extracted from NCBI backbone (NCBIN:69899, NCBIP:69900)
1, Araki, K.; Kuwano, R.; Morii, K.; Hayashi, S.; Minoshima, S.; Shimizu, N.; Ribaraki, K.; Kuwano, R.; Morii, K.; Hayashi, S.; Minoshima, S.; Shimizu, N.; Riburches: and expression of human and rat DZ dopamine receptor genes.
1, Title: Structure and expression of human and rat DZ dopamine receptor genes.
1, Accession: $40694; MUID:93264902; PMID:1363862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIAN 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;Status: preliminary
.Molecule type: mRNA
.Residues: 1-39,78',41-443 <ARA>
;Cross-references: GB:S62137; NID:g405309; PIDN:AAB26819.1; PID:g405310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14.2%; Score 290; DB 1; Length 443; 25.8%; Pred. No. 3e-16; 1tive 65; Mismatches 183; Indels 80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A Residues: 1-443 <SE2>
A PROPERTIES SOURCE: fetal brain and pituitary
A PROPORTIES SOURCE: fetal brain and pituitary
R Dearry, A.; Falardeau, P.; Shores, C.; Caron, M.G.
Cell. Mol. Neurobiol. 11, 437-453, 1991
A Filtle: D2 dopamine receptors in the human retina: cloning
A; Reference number: A48409; MUID:92076439; PMID:1835903
A; Accession: A48409.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Status: not compared with conceptual translation; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 25.8
Matches 114; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gene: GDB:DRD2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A, Molecule type: mRNA
A, Residues: 1-443 <ROBD.
A, Cross-references: EMBL.
S, Adal Toso, R.; Sommer, B.; Ewert, M.; Herb, A.; Pritchett, D.B.; Bach, A.; Shivers, B.I.
EMBC J. 8, 4025-4034, 1989
A, Title: The dopamine D2 receptor: two molecular forms generated by alternative splicing
A, Reference number: 809618; MUID:90076122; PMID:2531656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DYHUDZ

dopamine receptor D2 - human

dopamine receptor D2 - human

(spaces Homo sapiens (man)

C) Spaces Homo sapiens (man)

C) Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 21-Jul-2000

C) Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 21-Jul-2000

C) Accession: S08417; S09618; $\overline{S}$20842; A33392; A34502; A37013; A37384; A48409; S40694

E) Rocession: S08417; S09618; $\overline{S}$20842; A33392; A345010; E.M.

Nucleic Acids Res. 18, 1299, 1990

A,Title: Human retina D2 receptor cDNAs have multiple polyadenylation sites and differ

A, Reference number: S08417; MUID: 90206805; PMID: 2138729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 subtype.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290 HKSASPDHNQLAVPATSNQCKNASLTSPVESPYKAEKNGHPKDSTKPAKVFEIQSMPNGK 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,Title: The major dopamine D2 receptor: molecular analysis of the human D2-A A,Reference number: A33392, MUID:90126238; PMID:2533064
A,Accession: A33392
A,Molecule type: mRNA
A,Redecule: 1-443 <SEL>
A,Cross-references: GB:M30625; NID:g181431; PIDN:AAA88024.1; PID:g181432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236 THPEDVKLCSVFVKSNGSFPADKKKVILVQE-----AGKHPEDMEMEMMSSTSPPEKTK 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---PIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAA.356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               350 TRISIKTMSKKKLSQHKEKKATQMLAIVLGVFIICWLPFFIIHIINMCNC-NIPQALYS 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NILIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIA 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CSFDRIRGRPYTTIL-MGIYFVLGLSSVGIFYCLIHRQVKRA-----AQALDQY---- 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   264
                                                                                                                                                                                                                                                                                                                                                                                                             8 NFSCYHESVLG------YRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRF 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----KLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-443 < DAL>
A; Residues: 1-443 < DAL>
A; Cross-references: EMBL:XS1645; NID:g30867; PIDN:CABS6463.1; PID:g5921480
A; Accession: S20842
A; Molecule type: DNA
A; Residues: 179-379 < DAA
A; Residues: 179-379 < DAA
A; Cross-references: EMBL:XS1646; NID:g30868; PIDN:CAB37869.1; PID:g4467834
B; Selbie, L.A.; Hayes, G.; Shine, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NESMYNDDINNGTNGTAVDQKPHYNYYAMLLTLLVPVI-VFGNVLVCIAVSREKALQTTT
                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVC----
                                                                                                                                                                                                                                                                                                           90;
                                                                                                            F;223/Binding site: phosphate (Ser) (covalent) #status predicted
                                                                                                                                                                                                         ; Score 291; DB 1; Length 44; Pred. No. 2.4e-16; 75; Mismatches 176; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             265 -QTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AFTWLGYVNSAVNPIIYTTFNVEFRKAFIKIL 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NLTWL---NGCINPVLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                   14.3%;
24.6%;
                                                                                                                                                                                                         Query Match 14.3
Best Local Similarity 24.6
Matches 111, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Accession: S08417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           357
```

H

75

ō

OY 345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNRQPRQAYGSILKRGPRSFHR 394 ::	Dec-1992 #text change 2	Lff, R.M. Amine receptor in rat an PMID:2137198 anslation	A;Residues: 1-444 «CHI» A;Residues: 1-444 «CHI» A;Cross-references: GB:X51657; NID:g304; PIDN:CAA35970.1; PID:g305 C;Superfamily: vertebrate rhodopsin C;Superfamily: vertebrate rhodopsin C;Reywords: alternative splicing; G protein-coupled receptor; glycoprotein; lipoprotein; F;1-444/Product: dopamine receptor D2 (long form) #status predicted «NATI» F;3-59/Pomain: transmembrane #status predicted <tmi» #status="" <tmi»="" <tmi»<="" domain:="" f;109-130="" f;71-94="" predicted="" th="" transmembrane=""><th>edicted edicted edicted edicted (covale edicte</th><th>Qy 276DQINSKRAKQWAEKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFAL 330 Db 327 KNGHAKTVNPKIAKIFEIQSMPNGKTRTS-LKTMSRKLSQQKEKKATQMLAIVLGVFII 385 Qy 331 SYIPFLLINILDARVQAPRVVHMLAANLTWLNGINPVLYAAVRRQFAYGSIL 385 Db 386 CWLPFITHILNIHCDC-NIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKIL 442 RESULT 8 A45121 a1pha-1B adrenergic receptor - human C; Species: Homo sapiens (man)</th></tmi»>	edicted edicted edicted edicted (covale edicte	Qy 276DQINSKRAKQWAEKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFAL 330 Db 327 KNGHAKTVNPKIAKIFEIQSMPNGKTRTS-LKTMSRKLSQQKEKKATQMLAIVLGVFII 385 Qy 331 SYIPFLLINILDARVQAPRVVHMLAANLTWLNGINPVLYAAVRRQFAYGSIL 385 Db 386 CWLPFITHILNIHCDC-NIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKIL 442 RESULT 8 A45121 a1pha-1B adrenergic receptor - human C; Species: Homo sapiens (man)
Db 76 LAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRY 133	Qy 120 LLIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTGSFDRIRGRPYT 179 Db 134 TAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNE 181 Qy 180 TILMGIYFVLGLSSVGIFYCLIHRQVKRAAQAL 212 Db 182 CIIANPAVVSSIVSFVVFIVTLVVXKIVLRRRKRVNYKRSSAFRAHLRAPLK 241	213DOYKLRQASIHSNHVARTDEAMPGRFOELD-SRLASGGPSEGISSEPVSAA	307 APDSSSEFGKVTRMCFAVETGFALSYIPFILLINIDARVQAPRVVHMLAANLTES-LININGS 307 APDSSSEFGKVTRMCFAVETGFALSYIPFILLINIDARVQAPRVVHMLAANLTWLNG 361 RKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYVNS 364 CINPVLYAANTRQFRQAYGSIL 385 364 CINPVLYAANTRQFRQAYGSIL 385 364 CINPVLYAANTRQFRQAYGSIL 385 364 CINPVLYAANTRQFRQAYGSIL 385	RESULT 6 A40491 alpha-1-adrenergic receptor - golden hamster C;Species: Mescrictetus auratus (golden hamster) C;Species: Mescrictetus auratus (golden hamster) C;Species: A40491 B;Coccechia., S.; Schwinn, Dh.; Randall, R.R.; Lefkowitz, R.J.; Caron, M.G.; Kobilka, B. R;Coccechia., S.; Schwinn, Dh.; Randall, R.R.; Lefkowitz, R.J.; Caron, M.G.; Kobilka, B. A;Title: Molecular cloning and expression of the cDNA for the hamster alpha-1-adrenergic A;Recense number: A40491; MUD:89017157; PMID:2845398 A;Title: Molecular cloning and expression of the cDNA for the hamster alpha-1-adrenergic A;Recense number: A40491; MUD:89017157; PMID:2845398 A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot> A;Residues: 1-515 <cot <a<="" td=""><td>169 SFDRIRGRPYTTILMGI-YFVLGLSSYGIFYCLIHRQVKBAAQALDQYKLRQASIHSNHV 193 KECGVTEEPFYALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMS 228 ARTDEAMPGRFQELDSKLASGGPSGISSEPVSAATTQTLEGDSSEVGQQINSKRAKQMA </td></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot></cot>	169 SFDRIRGRPYTTILMGI-YFVLGLSSYGIFYCLIHRQVKBAAQALDQYKLRQASIHSNHV 193 KECGVTEEPFYALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMS 228 ARTDEAMPGRFQELDSKLASGGPSGISSEPVSAATTQTLEGDSSEVGQQINSKRAKQMA

```
uvydamine receptor D2 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 22-Jun-1999
C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 22-Jun-1999
C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 22-Jun-1999
C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 22-Jun-1999
C;Date: 31-Dec-1992 #sequence revision 31-Dec-1992 #text_change 22-Jun-1999
C;Date: 319-Dec-1992 #text_change 22-Jun-1999
C;Date: 31-Dec-1992 #text_change 22-Jun-1999
C;Date: 31-Dec-1
     Riculton, L.
submitted to the EMBL Data Library, July 1996
submitted to the EMBL Data Library, July 1996
specification: The sequence of C. elegans cosmid M03F4.
A;Reference number: 220097
A;Accession: T25837
A;Accession: T25837
A;Accession: T25837
A;Accession: T25837
A;Accession: T25837
A;Accession: T25837
A;Accession: T25837
A;Reference: BNA
A;Residues: 1-59 < FUL>
A;Coss-references: EMBL:U64601; PIDN:AAB04573.1; GSPDB:GN00028; CESP:M03F4.3
A;Experimental source: strain Bristol N2; clone M03F4
C;Genetics:
A;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     215 KMAAGLLTAVWAISFVVCSPPW----VIPSWNLFIDNNNNTGSSEDFKCAYS-PSVAYRI 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      328 TASAPHSRTRVQVNHNCGRVNYSVRPVEYANRVENSLKPSHERFDSTDCEDSPENGDSLE 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 388 ---AGTICNISMSLVINSPPNGLQKEAKNSMERECHSLADIVNSADIPVRKNTEVGVAPS 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KGIVLALVSTWVVGVASFAPLWPIYILVP--------VVCTCSFDRIRGRP 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          270 YSALGSFYLPLLVMLFVYFKIFRVASEREALMRQSVGT--CRLSNRLTKTQQKNQRNNLR 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   329 ALSYIPFLLINILDARVQAP----RVVHMLAANLTWL---NGCINPVLYAAMNRQFRQAY 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            505 IICMMPFFIMYLVEVPISDPVAESPIYRITSEFFLWLGYSNSVLNPIIYTMYNGDFRRCF 564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95 LGIHDVFIALFLYMLILLTIFGNILVVLSVVVYKRMRTFTNILLTSLATADLLVGLIVMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----VARTDEAMPGRFQELDSRLASGGPSEGISSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280 -SKRAKQM-AEKSPPEASAKAQ---PIKGARRAPDSSSE-----FGKVTRMCFAVFLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           445 LŚKRARQCNARLQPNNLLQKAHEHYQINGPCKAVRGŚKEKMVYMRERKALKTIGIVVLGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FSVDTYLHLH-WRIGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178 YTT-----ILMGIYF----VLGLSSVGIFYCLIHRQVKRAAQALDQYKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 IGYRYVAVSWGVVVAVTGTV-GNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:X55674; NID:950648; PIDN:CAA39209.1; PID:950649 R;Mack, K.J.; Todd, R.D.; O'Malley, K.L. J. Neurochem. 57, 795-801, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 592;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----OILEGDSSENGDOIN----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14.0%; Score 286.5; DB 2; Length 5 larity 22.5%; Pred. No. 8.2e-16; Conservative 73; Mismatches 184; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   382 GSILKRGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RDLLSFGCVQHHR 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  219 QAS----IHSNH-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        258 PVSAATT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 111; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \stackrel{\circ}{\sigma}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
C; Date: 17-Feb-1994 #sequence_revision 17-Feb-1994 #text_change 20-Apr-2000 C; Accession: 445121; JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 JUC332 J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  45 AISVGLVLGAFILFAIVGNILVILSVACNRHLRTPTNYFIVNLAMADLLLSFTVLPFSAA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80 TYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALVSTWVVG-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALLSVWVLSTVISIGPLIGWK----EPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IFYCLIHROVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFG 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      316 KVTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IVVGM-----FILCWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNPIIYPC 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
T25837
hypothetical protein M03F4.3 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T25837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------DILSSIKAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AVSWGVVVA---VIGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14.0%; Score 286.5; DB 2; Length 24.9%; Pred. No. 7e-16; ive 71; Mismatches 151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSKEFKRAFVRILGCQCRGRRRRR 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MNRQFRQAYGSILK --- RGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    351
```

원 ò g

ò

셤 à g 8

 δ

ŭ

g

ઠ g 8 셤

```
A, Modecule type: DNA
A, Residues: 1.24, (°', 26-28,'P', 30-88,'R', 90-103,'S', 105-270,'P', 252-444 < MAC>
A, Residues: 1.24, (°'), 26-28,'P', 30-88,'R', 90-103,'S', 105-270,'P', 252-444 < MAC>
A, Rote: the authors translated the codon CAG for residue 16 as Glu
C, Superfamily: vertebrate rhodopsin
C, Reywords: alternative splicing; G protein-coupled receptor; Glycoprotein; lipoprotein;
C, Keywords: alternative splicing; G protein-coupled receptor; Glycoprotein; lipoprotein;
F; 1-444/Product: dopamine receptor D2 (long form) #status predicted < MAI]>
F; 1-241,271-444/Product: dopamine receptor D2 (long form) #status predicted < MAI>
F; 109-130/Domain: transmembrane #status predicted < TM3>
F; 105-130/Domain: transmembrane #status predicted < TM5>
F; 100-130/Domain: transmembrane #status predicted < CYT>
F; 100-130/Domain: transmembrane #status predicted < TM7>
F; 100-130/Domain: transmembrane #status predicted < TM7>
F; 107-330/Domain: transmembrane #status predicted < TM7>
F; 107-330/Do
A;Title: The mouse dopamine D2A receptor gene: sequence homology with the rat and human A;Reference number: JH0452; MUID:91318281; PMID:1861151 A;Accession: JH0452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62 LTLADLLYCTLLQPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 189 FVVYSSİVSFYVPFIVTLİVYİKİYİVİRKRRRKNYTKRSSRAFRANLKTPLKGNCTHPE 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214 QYKLRQASIHSN----HVARIDBAMPGRFQELD-SRLASGGPSEGISSEPVSAATIQTL 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DMKLCTVIMKSNGSFPVNRRRMDAAR--RAQELEMEMLSSTSPPERTRYSPIPPSHHOLT 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL---NGCINP 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              366 QQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYVNSAVNP 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 WINSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : | | : | : | : | : | | | | : | : | | | | : | : | | | | | : | : | | | | | : | : | | | | | : | : | | | | | : | : | | | | | : | | | | : | : | | | | | : | : | | | | | : | : | | | | | : | : | | | | : | : | | | | | : | : | | | | : | : | | | | : | : | | | | : | : | : | | | | : | : | : | | | | : | : | : | | | | : | : | : | | | : | : | : | : | | : | : | : | : | | : | : | : | : | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LAVADLLVATLVMPWVV--YLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120 LLIAHPKLFPQVFSAKGIVLALVS-TWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EGDSSEVG------DQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       307 LPDPSHHGLHSNPDSPAKPEKNGHAKIVNPRIÄKFFEIQTMPNGKTRTS-LKTMSRRKLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 444;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTILMGI ----YFVLGLSSVGIFYCLIHRQ----VKRAAQAL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13.9%; Score 283.5; DB 1; 25.6%; Pred. No. 1e-15; tive 70; Mismatches 185;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ::| | :||:|: ||
IIYTTFNIEFRKAFMKIL 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 25.6%
Matches 112; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

```
A,Molecule type: mRNA
A,Residues: 1-98,70',100-172,'R',174-179,'G',181-444 <RAO>
A,CROSS-references: 188.753278; NID:9288117; PIDN:CAA37373.1; PID:9288118
B,O'Dowd, B.F.; Nguyen, T.; Tirpak, A.; Jarvie, K.R.; Israel, Y.; Seeman, P.; Niznik, H.E
FEBS Lett. 262, 8-12, 1990
A,Title: Cloning of two additional catecholamine receptors from rat brain.
A,Reference number: S09096; MUID:90201380; PMID:2138567
                                                                                                                                in rat and bovine caudate nucle:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       revealed by the polymerase chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 splicing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A,Note: the list of introns may be incomplete
C;Superfamily: vertebrate rhodopsin
C;Superfamily: vertebrate rhodopsin
C;Kaywords: alternative splicing; G protein-coupled receptor; glycoprotein; lipoprotein;
F;1-44/FProduct: dopamine receptor D2 (long form) #status predicted <MAT1>
F;1-241,271-444/Product: dopamine receptor D2 (short form) #status predicted <MAT2>
F;38-59/Domain: transmembrane #status predicted <TM1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           two D2 dopamine receptor isofo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Residues: 242-270 <MIL>
A;Residues: 242-270 <MIL>
A;Cross-references: GB:M32241; NID:g203902; PIDN:AAA41074.1; PID:g203904
A;Cross-references: GB:M32241; NID:g203902; PIDN:AAA41074.1; PID:g203904
R;Taylor, P.L.; Inglis, J.D.; Eidne, K.A.
submitted to the EMBL Data Library, October 1990
A;Description: 5' untranslated region of rat pituitary dopamine D2(B) receptor contains
                                                                                                                                                                                                                                                                                                                Christie, M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A.; Shivers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A, Molecule type: mRNA
A, Residues: 175-29 cDAL>
RGircos, B.; Sokoloff, P.; Martres, M.P.; Riou, J.F.; Emorine, L.J.; Schwartz, J.C.
Nature 342, 923-926, 1989
A, Title: Alternative splicing directs the expression of two D2 dopamine receptor is
A, Reference number: S08145; MUID:90081872; PMID:2531847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A,Molecule type: mRNA
A,Residues: 126-303 <0DO>
R,Aal Toso, R., Sommer, B.; Ewert, M.; Herb, A.; Pritchett, D.B.; Bach, A.; Shiv
EMBO J. 8, 4025-4034, 1989
A,Title: The dopamine D2 receptor: two molecular forms generated by alternative
A,Reference number: S09518; MUID:90076122; PMID:2531656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: EMBL:X56065; NID:g56063; PIDN:CAA39543.1; PID:g56064
                                                                                                                                                                                                                                                                         A;Residues: 1-444 <CHI>R;Bunzow, J.R.; Albert, P.; Salon, J.;
Nature 336, 783-787, 1988
A;Title: Cloning and expression of a rat D(2) dopamine receptor cDNA.
A;Reference number: S07791; MUID:89082643; PMID:2974511
A;Cross-references: EMBL:X17458
R;Chio, C.L.; Hess, G.F.; Graham, R.S.; Huff, R.M.
Nature 343, 266-269, 1990
A;Title: A second molecular form of D2 dopamine receptor
A;Reference number: S08163; MUID:90136899; PMID:2137198
A;Accession: S19610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Rao, D.D.; McKelvy, J.; Kebabian, J.; MacKenzie, R.G. FEBS Lett. 263, 18-22, 1990
A;Title: Two forms of the rat D(2) dopamine receptor as A;Reference number: $609040; MJID:90235966; PMID:2139615 A;Accession: $609040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1-241,271-444 <BUN>
A; Cross-references: EMBL:X14028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Introns: 241/3; 270/3; 381/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reference number: S21548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Residues: 1-444 <TAY>
                                                                                                                                                                                                                                              A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Status: preliminary
Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Accession: A34046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Accession: S21548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Accession: S1925
```

A34

dopamine receptor D2 - rat
C;Species: Rattus norregicus (Norway rat)
C;Species: Rattus norregicus (Norway rat)
C;Date: 30-Jun-1999
C;Date: 30-Jun-1999
C;Date: 30-Jun-1999
C;Accession: S08.46; S19610; S07791; S09040; S09097; S19251; S08145; A34046; S21548; S;Monsma Jr., F.J.; McVittie, L.D.; Gerfen, C.R.; Mahan, L.C.; Sibley, D.R.
Nature: 342, 926-929, 1989
A;Title: Multiple D2 dopamine receptors produced by alternative RNA splicing.
A;Reference number: S08146; MulD:90081873; PMID:2480527

A; Molecule type: mRNA

g ò g ò 원 ò ò

ò

```
Grootest Coupled receptor GCR1 - migratory locust
C,Species: Locusta migratoria (migratory locust)
C,Species: Locusta migratoria (migratory locust)
C,Bace: 15-Feb-1996 #sequence_revision 01-Mar-1996 #text_change 17-Nov-2000
C,Accession: S58869; S58869
R,Vanden Broeck, J.; Vulsteke, V.; Huybrechts, R.; De Loof, A.
J. Neurochem. 64, 2387-2395, 1995
A;Title: Characterization of a cloned locust tyramine receptor CDNA by functional express A;Title: Characterization of a cloned locust tyramine receptor CDNA by functional express A;Setaus: Ds8868
A;Accession: S58868
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-484 < VANA
A;Residues: 1-307, 'D',309-338,'K',340-484 < VA2
A;Residues: 1-307,'D',309-338,'K',340-484 < VA2
A;Residues: 1-307,'D',309-338,'K',340-484 < VA2
A;Residues: 1-307,'D',309-338,'K',340-484 < VA2
A;Residues: 1-307,'D',309-338,'K',340-484 < VA2
A;Ross-references: EMBL:X69521, NID:9871406; PIDN:CAA49269.1; PID:9871407
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, November 1992
C;Keywords: G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           67 LLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPK 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KUKTHPSVRLLKFSREK-----KAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFRP 303
                                                                                                                                                                                                                                                                                   RPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAM 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LTVAVLVMPFNVAYSLIQRWVFGIVVCKMMLTCDVLCCTASILNLCAIALDRYWAITDPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         127 LFPQVFSAKGIVLALVSTWVV-GVASFAPL-----WPIYI--LVPVVCTCSFDRIRGRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NYAQKRTLRRVLAMIAGVWLLSGVISSPPLIGWNDWPMEFNDTTP----CQLTBEQGYVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTILMGIY---FVLGLSSVGIFYCLIHROVKRAA----QALDQYKLRQA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ESVSSETNHNELPPPPAPPSKEKRRKTKKKSKKKEQAAEEGRFLAPAMVAEDSVTDNSVS
                                                                                                                                                     LLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPLWPIYILVP---VVCTCSFDRIRG
                                                                                                                                                                                           PGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          15 SVLGYRYVAVSWGVVVAVTG-----TVGNVLTLLALAIQPKLRTRFNLLIANLTLAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---OELDSRLAS
                                                                       295 SAK----AQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDA---RVQA
                              ANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            304 SETVFKIAFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLRRKQSSKHTL 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      348 PRVVHMLAANLIWLNGCINPVLYAAMNRQFRQAYGSI-----LKRGPRSFHRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 484;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13.7%; Score 280; DB 2; Length 48 24.5%; Pred. No. 2.2e-15; Live 63; Mismatches 187; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----VARTDEAMPGRF----
                                                                                                                                                                                                                                                                                                                            181 EPGYVLFSALGSFYVPLTIILVMYCRVYVVAKRESRGL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---SIHSNH----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 13.7
Best Local Similarity 24.5
Matches 111; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                        235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   252
                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \dot{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                           8
                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
A35375
Labba-L-adrenergic receptor - bovine
Cipbate: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 13-Aug-1999
Cipate: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 13-Aug-1999
Cipate: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 13-Aug-1999
Cipate: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 13-Aug-1999
Cipate: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 13-Aug-1999
Rischain, DA: Lomasney, JW.; Lorenz, W.; Szklut, P.J.; Fremeau Jr., R.T.; Yang-Feng, J. Biol. Chem. 265, 8183-8189, 1990
A;Title: Molecular cloning and expression of the cDNA for a novel alpha-1-adrenergic red A; Reference number: A35375
A;Molecule type: mRNA
A;Residues: 1-466 <SCH>
A;Residues: 1-466 <SCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
CSCH>
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LAVADLLVATLVMPWVV--YLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRY 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120 LLIAHPKLFPOVFSAKGIVLALVS-TWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPY 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189 FVVYSSÍVSFYVPFIVTLÍVYIKÍYIVLRKRRRKRVNTKRSSRAFRANLKTPLKGNCTHPE 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         249 DMKLCTVIMKSNGSFPVNRRRMDAAR--RAQELEMEMLSSTSPPERTRYSPIPPSHHQLT 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311 SSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL---NGCINP 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYVNSAVNP 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EGDSSEVG-------DQINSKRAKOMAEKSPPEASAKAQPIKGARRAPDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LTLADLLYCTLLQPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179 TTILMGI-----YFVLGLSSVGIFYCLIHRQ----VKRAAQAL-----D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               214 QYKLROASIHSN----HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVSAATTQTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       307 LPDPSHHGLHSNPDSPAKPEKNGHAKIVNPRIAKFFEIQTMPNGKTRTS-LKTMSRKKLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIOPKLRTRFNLLIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NSSDANFSCYHESVLGYRYVAVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
F;71-94/Domain: transmembrane #status predicted <TM2>
F;109-130/Domain: transmembrane #status predicted <TM3>
F;152-174/Domain: transmembrane #status predicted <TM4>
F;152-174/Domain: transmembrane #status predicted <TM5-
F;211-374/Domain: transmembrane #status predicted <TM7>
F;211-374/Domain: transmembrane #status predicted <TM7>
F;717-398/Domain: transmembrane #status predicted <TM7>
F;5.17.23/Binding site: carbohydrate (Asn) (covalent) #status predicted <TM7-
F;5.17.23/Binding site: carbohydrate (Asn) (covalent) #status predicted F;444/Binding site: phalmitate (C9s) (covalent) #status predicted F;444/Binding site: palmitate (Cys) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             71;
                                                                                                                                                                                                                                                                                                                                                                                      Query Match 13.9%; Score 283.5; DB 1; Length 444; Best Local Similarity 25.6%; Pred. No. 1e-15; Matches 112; Conservative 70; Mismatches 185; Indels 71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2; Length 466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 23.0%; Pred. No. 1.6e-15;
Matches 95; Conservative 82; Mismatches 153; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::| | :||:|
IIYTTFNIEFRKAFMKIL 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

pharmacel

```
A,Status: prediminary; translated from GB/EMBL/DDBJ
A,Status: prediminary; translated from GB/EMBL/DDBJ
A,Status: prediminary
A,Molecule type: mRNA
A,Residues: 1.466 exES>
A,Cross-references: EMBL:U07126; NID:9595275; PIDN:AAA62866.1; PID:9595276
B;Stewart, A.F.; Rokosh, D.G.; Bailey, B.A.; Karns, L.R.; Chang, K.C.; Long, C.S.; Kariiiii C. Res; 75, 796-802, 1994
A;Reference number: 152862; MUD:95008062; PMID:7923624
A,Recession: 152862
A,Recession: 152862
A,Recession: 152862
A,Recession: 152862
A,Recession: 152862
A,Recession: 1336, L', 40-66, G', 68-466 exEZ>
A,Recession: D,G.; Bailey, B.A.; Stewart, A.F.R.; Karns, L.R.; Long, C.S.; Simpson, P.C.
Blochen: Blophys: Res. Commun. 200, 1177-1184, 1994
A,Reference number: PC2179; MUD:94241969; PMID:9185565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,Molecule type: mRNA
A,Residues: 102-279 <ROK>
A,Experimental source: cardiac myocyte
C,Comment: This factor comprises a multigene family. As do alpha-2 and beta-adrenergic re
C,Superfamily: vertebrate rhodopsin
                                                                                                                                                                 C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 02-Aug-1996 #sequence revision 02-Aug-1996 #text_change 20-Apr-2000
C;Accession: 157955; 152862; PC2179
R;Laz, T.M.; Porray, C.; Smith, K.E.; Bard, J.A.; Vaysse, P.J.; Branchek, T.A.;
Mol. Pharmacol. 46, 41-422, 1994
Mol. Pharmacol. 46, 41-422, 1994
A;Title: The rat homologue of the bovine alpha 1c-adrenergic receptor shows the A;Reference number: 157959; MUD:95021119; PMID:7935320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126 IGVSYPLRYPTIVTQRRGVRALLCVWVLSLVISIGPLFGWRQPAPEDETIC-----QINE 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 EPGYVLFSALGSFYVPLAIILVMYCRVYVVAKRESRGLKGLKTDKSDSEQVTLR---IH 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNHVARIDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRA 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        284 KOMAEKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---RVQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSI-----LKRGPRSFHRL 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 NSSDANFSCYHESVLGYRYVAVSWGVVVA---VTGTVGNVLTLLALALAIQPKLRTRFNLLI 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120 LLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPLWPIYILVP---VVCTCSFDRIRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQAL------DQYKLRQASIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----PAEG---GGVSSAKNKT------HFSVRLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----KAAKTLGIVVGCFVLCWLPFFLVMPIGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7 NASEGS-NCTHPPAPVNISKAILLGVILGGLIIFGVLGNILVILSVACHRHLHSVTHYYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60 ANLTLADLLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reywords: neutrotransmitter receptor; transmembrane protein 26-42/Domain: transmembrane #status predicted <TMI>:73-89/Domain: transmembrane #status predicted <TMI>:104-120/Domain: transmembrane #status predicted <TMI>:104-120/Domain: transmembrane #status predicted <TMI>:147-163/Domain: transmembrane #status predicte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F)104-120/Domain: transmembrane #status predicted <TW3>F)147-163/Domain: transmembrane #status predicted <TW4>F)147-163/Domain: transmembrane #status predicted <TW5-75-292/Domain: transmembrane #status predicted <TW5-F)206-292/Domain: transmembrane #status predicted <TW6-F)306-329/Domain: transmembrane #status predicted <TW6-F)306-329/Domain: transmembrane #status predicted <TW7>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13.6%; Score 278.5; DB 2; 23.1%; Pred. No. 2.8e-15; tive 78; Mismatches 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 Similarity
97; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RKNV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Accession: I57959
A; Status: preliminar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: PC2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:AF336364
C;Comment: This receptor, for the neuropeptide, is involved in the inhibition of juvenil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        allatostatin receptor - American cockroach
C;Species: Periplaneta americana (American cockroach)
C;Species: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 03-Aug-2001
C;Accession: UG7677
R;Auerswald, L.; Birguel, N.; Gaede, G.; Kreienkamp, H.J.; Richter, D.
Biochem. Biophys. Res. Commun. 282, 904-909, 2001
A;Title: Structural, functional, and evolutionary characterization of novel members of A;Reference number: UG7677; MUID:21250673; PMID:11352636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13;
                                                                                                                                                                                                                                            352
                                                                                                                                                                                                                                                                                                          189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVLAL 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             190 AVTWVILLLASVPVYLSHGEVTYTYSSAEHTACVFLEADPI-NRPDGYNKPVFQIIFFAT 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                336
                                                                                                                334 VGPVARNHLAEDGYTCTÍTÍTÍTTTTTAVTÓSPRSRTÁSÓKGSTAPPTPVOPKSIPVYOF
                                                                                                                                                                                                                                      301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNIL----DARVQAPRVVHMLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           142 VSTWVVGVASFAPLWPIYILVPVV-----CTCSF---DRIRGRP-----YTTILMGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         245 LASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305 RRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNIL------DARVQAPRVVHMLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIANLTLADLLYCTLLQPFSVDTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YFVLGLSSV-GIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 133; Gaps
GGP--SEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPP-EASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ::| |:| |: | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                356 ANLTWINGCINPVLYAAMNROFRQAYGSIL-----KRGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----SRRGKK-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   249 SYVTPLALICGLYLWLLVRLWRGAA-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Keywords: neuropeptide; transmembrane protein
F;73-94/Domain: transmembrane #status predicted <TM1>
F;105-127/Domain: transmembrane #status predicted <TM2>
F;143-164/Domain: transmembrane #status predicted <TM2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F;187-207/Domain; transmembrane #status predicted cTM4>
F;247-264/Domain: transmembrane #status predicted cTM5>F;290-312/Domain: transmembrane #status predicted cTM6
F;320-350/Domain: transmembrane #status predicted cTM6
F;327-350/Domain: transmembrane #status predicted cTM7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13.6%; Score 278.5; DB 2; llarity 23.1%; Pred. No. 2.5e-15; Conservative 64; Mismatches 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      356 ANLTWL---NGCINPVLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :||| :||::| :| :| :| :- :| -- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- :| :- 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                165-167/Region: active element
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---- PGGHVSAE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1-423 <AUE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Simi:
Matches 94;
      248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Gene: AlstR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Residues:
                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                             d
                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

14;

65

175

297 FPPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEPKKAFQNVLRIQCLRRRQSSKHAL 356

Search completed: September 24, 2004, 08:40:17 Job time: 45 secs

DP

4.5

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
```

OM protein - protein search, using sw model

September 24, 2004, 04:51:55; Search time 24 Seconds (without alignments) 859.158 Million cell updates/sec Run on:

US-10-029-436-2 2041 1 MWNSSDANFSCYHESVLGYR......FRQAYGSILKRGPRSFHRLH 396 Title: Perfect score: Sequence:

141681 seqs, 52070155 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table: Searchéd:

141681

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt_42:* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		!		e)	Į,	ď.	n.	n	m	? .	ņ	u:	n.	70	ם	ຸກ	r.	18	5	e c	ne Le	น	Q;	پ	רח	2	D m	r.	2	r.	lu	ue	٦.	Tod
		drosophila	leagris	xenopus la		₽		mesocricetu	bos taurus	rattus norv	cercopithec	homo sapien	s musculu	taur	locusta mig	locusta mig	s muscu.	oryctolagus		cavia porce		mo sapien	fugu rubr	oryzias lat	s musculu	rattus norv	cercopithec	s musculu	rattus norv				0	trog
	pti		me	8 xei	nomod 3	pan																			_									5 pan
	Descri	mpu60	073810	P24628	P1441(P60026	P97718	P18841	P20288	P1582	P52703	P35368	P1395	P1813	025323	02532	P9771	002824	P4314	09wu2	P3534	P3546	P5345	09117	P9771	P2394	P5270	P3072	P1902	08849	596	4361	96p	Q9n2b
		, , , , , ,																																
δ		-																																
SUMMARIES		DROME	MELGA	XENLA	D2DR_HUMAN	PANTR	A1AA_MOUSE	MESAU	BOVIN	A1AB RAT	D2DR_CERAE	HUMAN	MOUSE	BOVIN	LOCMI	LOCMI	A1AB MOUSE	RABIT	RAT	ALAA CAVPO	HUMAN	HUMAN	FUGRU	A1AA_ORYLA	MOUSE	RAT	CERAE	D3DR MOUSE	RAT	MOUSE	B3AR MOUSE			PANTR
SI	DI	TRE1	D2DR	D2D1	D2DR	D2DR	AlAA	A1AB	D2DR	A1AB	D2DR	A1AB	D2DR	A1AA_B	OAR2	OARI	A1AB	A1AA_R	AIAA	Alaa	ALAA	D3DR	D2DR	AIAA	ALAD	AIAD	D3DR	D3DR	D3DR	ML1X	B3AR	OX1R	, G101	5H1E
	DB																																Н	
	Length	392	436	442	443	443	466	515	444	. 515	443	519	444	466	484	484	514	466	466	466	466	400	463	470	295	561	400	446	446	583	400	425	508	363
	% Query Match	i 9	14.6	14.3	4	4	14.1	4	4	4	4	4	(L)	m	m	m	3	m	Э	13.4	13.4	13.4		ش		'n			ω.	ω.	m.	ς.	13.0	
	Score	338	298	291	290	290	88	288.5	288	287.5	287	86	283.5	8	281	280		278.5		274	274	7	272.5	272	5	7	39	6	267.5	6	266	266	264.5	259
	Result No.	1	73	m	4	ហ	9	7	ø	6	10	11	12	13	14	15	16	. 17	18	19	20	21	22	23	24	25	26	27	28	20	30	31	32	33

P28566 homo sapien P30553 rattus norv C002666 oryctolagus P26255 rattus norv P56718 rattus norv P56718 rattus norv P49288 gallus gall P28335 homo sapien C01337 mus musculu P22086 rattus norv C9xt58 ovis aries C13585 homo sapien C9xt58 ovis aries
SHIE HUMAN GASR RAT AIAD RABIT AIAD RABIT OXIR RAT OXIR RAT MLIC CHICK SH2C HUMAN AZAC WOUSE AZAC RAT AZAC RAT AZAC RAT AZAC RAT AZAC RAT AZAC RAT CCKR RABIT
CARRORATE
нанананана
362 452 576 400 410 458 458 4658 4658 4658 4658 4658
222 222 222 222 222 222 222 222 232 2444
далененалан
2 2 22 2 2 2 2 22 2 2 2 2 2 2 2 2 2 2 2
в в в в в в в в в в в в в в в в в в в

ALIGNMENTS

RESULT 1

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
Lasko P., Lei Y., Levitsky A.A., Li J.H., Li Z., Liang Y., Lin X., Liu X., Mattei B., McIntosh T.C., McLeod M.P., Mcherson D., Martei B., McInhaina N.V., Mobarry C., Mcris J., Moshrefi A., Mount S.M., Moy M., Murphy L., Muzhy C., Morris J., Moshrefi A., Mount S.M., Moy M., Murphy L., Muzhy D.M., Nelson D.E., Malson K.A., Nixon K., Nusskern D.R., Pacleb J.M., Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Resee M.G., Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H., Shue B.C., Sidan-Kiamos I., Simpson M., Skupski M.P., Smith T., Sher E., Spradling A.C., Stapleton M., Skupski M.P., Smith T., Spier E., Spradling A.C., Stapleton M., Strong R., Sun B., Svirskas R., Tector C., Turner R., Venter E., Wang X., And Z.-Y., Wassarman D.A., Weinstock G.M., Weisenbach J., Williams S.M., Wocdage T., Worley K.C., Wu D., Yang S., Yao Q.A., Welliams S.M., Wocdage T., Worley K.C., Wu D., Yang S., Yao Q.A., Are J., Yeh R.-F., Zaveri J.S., Zhan M., Zhun S., Zhu X., Smith H.O., Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.; The Genome sequence of Drosophila melanogaster.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIJNE-22426069; PubMed=12537572;
Misra S., Crosby M.A., Mungall C.J., Matthews B.B., Campbell K.S.,
Hradecky P., Huang Y., Kaminker J.S., Millburn G.H., Prochnik S.E.,
Smith C.D., Tupy J.L., Whitfield E.J., Bayrakaroglu L., Berman B.P.,
Bettencourt B.R., Celniker S.E., de Grey A.D.N.J., Drysdale R.A.,
Harris N.L., Richter J., Russo S., Schroeder A.J., Shu S.Q.,
Stapleton M., Yamada C., Ashburner M., Gelbart W.M., Rubin G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Annotation of the Drosophila melanogaster euchromatic genome: a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genome Biol. 3:RESEARCH0083.1-RESEARCH0083.22(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fighese; FBgn0046687; Trel.
GO; GO:0016021; C:integral to membrane; NAS.
GO; GO:0015827; F:taste receptor activity; IMP.
GO; GO:00015827; P:sweet taste perception; IMP.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PP00001; 7tm 1; 1.
PRINTS; PR00237; GPCRRHODDPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL, AB042625, BAA96500.11

EMBL, AB066613, BAB68237.11

EMBL, AB066615, BAB68238.11

EMBL, AB066615, BAB68240.11

EMBL, AB066616, BAB68241.11

EMBL, AB066617, BAB68241.11

EMBL, AB006435, AAF46059.21

EMBL, AY070980, AAL48602.11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MBL; AB034204; BAA95353.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                review
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              systematic
                                                                                                                                                                                                                                                                                                                                                    REVISIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lewis S
```

```
| ::| | | ::| | ::| : | :| | 3.09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122 IAHPKLFPQVFSAKGIVLALVSTWVVGVASFAP----LWPIYILVPVVCTCSFDRIRGRP 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178 YTTILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGR 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  298 AQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINIL-DARVQAPRVVHMLAA 356
                                                                                                                                                                                                                                                                                                                                                                                                 25 ATQSIYPHSATL---FAAISACVEVTI-GVLGNLITLIALLKSPTIREHATTAF---VIS 77
                                                                                                                                                                                                                  M -> MDMGMGM (IN STRAINS HG84, SINGAPORE AND W CV).
                                                                                                                                                                                                                                                                                                                                                                                   7 ANFSCY-HESVLGYRYVAVSWGVVVVAVTGTVGNVLTLLALAIQPKLR----TRFNLLIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                 LTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NO---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      238 FQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             238 FQ-----IAAA-----IAAA-----KGSSSSGGGSYMTTTCTRKAR-----
                                                                                                                                                                                                                                                                                                                                                               96; Gaps
PROSITE; PS00237; G PROTEIN RECEP F1 1; 1.

Receptor; G-protein coupled receptor; Transmembrane; Glycoprotein; Polymorphism; Multigene family.

DOMAIN 40 60 1 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DRD2.
Meleagris gallopavo (Common turkey).
Bukaryota; Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
                                                                                                                                                                                                                                                         (IN STRAINS HG84, SINGAPORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              357 NLTWLNGCINPVLYAAMNRQFRQAY------GSILKRGP-RSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              L -> M (IN STRAINS SHANGHAI AND
TARANARIYE)
L -> P (IN REF 1)
                                                                                                                                                                                                                                                                                                                                       16.6%; Score 338; DB 1; Length 392; ilarity 25.9%; Pred. No. 3.3e-16; Conservative 67; Mismatches 140; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         198 IKKTLFVIGFLIPCLVIIVSYSCIYITV------LHQKKIRNH-
                                                                                                                     4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL)
                                                                                                                                                                         6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
                                                                                      Z (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                             (POTENTIAL).
                                                                                                                                            .TKACLL...
(POTENTIAL).
                                                                                                                                                                                        TRACELL (POTENTIAL).
                                                                      (POTENTIAL)
                                                                                                                                                                                                           CYTOPLASMIC (POTEN N-LINKED (GLCNAC. M -> MDMGMGM (IN 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436 AA
                                                                                                       3 (POTENTIAL)
CYTOPLASMIC (
                                                                                                                                                               CYTOPLASMIC
                                                                                                                                                                                                                                                         F -> I (II
AND W CV)
                                                                                                                                                                                                                                                                                                     226 · 226
392 AA; 43843 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D(2) dopamine receptor.
                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                     12
                                                                                                                                                                                                                                                                               348
                                                                                                                                                                                                                                                                                                                                                             Matches 106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D2DR MELGA
073810;
                                                                    DOMAIN
TRANSMEM
DOMAIN
                                                                                                     TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                     CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                                                                                                                         RANSMEM
                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         265
                                                                                                                                                                                                'RANSMEM
                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                   AR I ANT
                                                                                                                                                                                                                                                         VARIANT
                                                                                                                                                                                                                                                                             VARIANT
                                                                                                                                                               DOMAIN
                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D2DR_MELGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
    OSCHERA
                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
242 DSRLASGGPSEGISSEPVSAATTQTLE-----GDSSEVGDQINSKRAKQMAEKSPPE 293
                                                                                                                                                ---NLHTAKVFEIQSMPN 340
                                                                                                                                                                                                             294 ASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHM 353
                                                                                                                                                                                                                                              341 GKTRSTLLKAMNRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNMHCDCNIPPAM 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dopamine receptor.";
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett. 281:85-89(1991).
FEBS Lett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=brain;
MEDLINE=91200321; PubMed=1826663;
Martens G.J.M., Molhuizen H.O.F., Groeneveld D., Roubos E.W.;
Martens G.J.M., Molhuizen H.O.F., Groeneveld D., Roubos E.W.;
"Cloning and sequence analysis of brain cDNA encoding a Xenopus D2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae,
Xenopodinae, Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                      :| ||| | :||::| | | 401 YSA-FTWLGYVNSAVNPIIYTTFNIEFRKAFMKIL 434
                                                                                                                                                                                                                                                                                                                                                354 LAANLIWL ---NGCINPVLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-1992 (Rel. 21, Created)
01-MAR-1992 (Rel. 21, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       442 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D(2) dopamine receptor 1.
Xenopus laevis (African clawed frog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; X59500; CAA42088.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31
54
65
91
102
124
1124
1180
1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-1992
01-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D2D1_XENLA
P24628;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D2D1_XENLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                    ò
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LLIANLTLADLLYCTLLLOPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLI 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALGRYLLIAHPKLFPQVFSAKGIVLALVS-TWVVGVASFAPLW--------PI 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :: | | | | | : : | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YIL------VPVVCTCSFDRIRGRPYTTILMGIYFVLGLSSVGIFYCLIHRQVKRAAQ 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----QYKLRQASIHSN------HVARTDEAMPGRFQEL 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 WNSSDANFS-CYHESVLG----YRYVAVSWGVVVAVTGTVGNVLTLLLALAIQPKLRTRFN
                                                                                                    SEQUENCE FROM N.A.
STRAIN=Nicholas large white; TISSUE=Brain;
SCHALN=Nicholas large white; TISSUE=Brain;
Schnell S.A., You S., Foster D.N., el Halawani M.E.;
Schnell S.A., You S., Foster D.N., el Halawani M.E.;
Schnell S.A., You S., Foster D.N., el Halawani M.E.;
Schnell S.A., You S., Foster D.N., el Halawani D.S., popamine
receptor from the domestic turkey (Meleagris gallopavo).";
Submitted (MAR-1998) to the EMBL/Genbank/DDBJ databases.
-!- FUNCTION: This is one of the five types (DI to DS) of receptors
for dopamine. The activity of this receptor is mediated by G
for dopamine inhibit adennylyl cyclase (By similarity).
-!- SUBCELULIAR LOCATION: Integral membrane protein.
-!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
          Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Meleagris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
SFB13F684532C53B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 25.5%; Pred. No. 2e-13;
Matches 116; Conservative 66; Mismatches 173; Indels 100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AF055201; AAD03818.1; -.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 77m_1; 1.
PRINTS; PF00001; 77m_1; 1.
PROSITE; PS00237; GPCRHODDPSN.
PROSITE; PS00237; GPROTEIN RECEP F1 1; FALSE_NEG.
G-protein coupled receptor; Transmembrane; Glycoprotein; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49389 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                436 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALD----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NIMMOO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
```

d

40 yy 40

```
human retina.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Brain;
       LY REAL TO A SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64 NYLIVSLAVADLLVATLVMEWAVYMEVVGEWRFSRIHCDIFVTLDVMMCTASILNLCAIS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVC-----T 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          124 IDRYTAVAMPMLYNTRYSSKRRVTVMIS--VVWVLSPA-----ISCPLLFGLNNTGSKV 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236 THPEDVKLCSVFVKSNGSFPADKKKVILVQE-----AGKHPEDMEMEMMASTSPPEKTK 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         265 -QTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQ-----299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         290 HKSASPDHNOLAVPATSNOCKNASLTSPVESPYKAEKNGHPKDSTKPAKVFEIQSMPNGK 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300 ---PIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDARVQAPRVVHMLAA 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 NFSCYHESVLG------YRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56 NILIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         168 CSFDRIRGRPYTTIL-MGIYFVLGLSSVGIFYCLIHRQVKRA-----AQALDQY---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----KLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATT----
                                                                      7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
IMPLICATED IN CATECHOL AGONIST BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=90126238; PubMed=2533064;
Selbie L.A., Hayes G., Shine J.;
"The major dopamine D2 receptor: molecular analysis of the human D2A subtype.";
                                                                                                                                             (BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

IMPLICATED IN RECEPTOR ACTIVATION

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY).

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILARITY.

(BY SIMILA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :06
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 291; DB 1; Length 442;
Pred. No. 6.2e-13;
5; Mismatches 176; Indels
                            6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
     CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            357 NLTWL---NGCINPVLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           409 AFTWLGYVNSAVNPIIYTTFNVEFRKAFIKIL 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P14416; Q9NZR3; Q9UPA9;
01-JAN-1990 (Rel. 13, Created)
1-JAN-1990 (Rel. 13, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         443 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                  14.3%; Scor-
24.6%; Pred
75; N
                                                                                                                                                                                                                                                                                                                                                                          49738 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 111; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                            15
18
176
                       188
                                                                                                                                                                                                                          191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dopamine receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                          442 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
     205
3373
397
405
187
                                                                                                                                                                          188
                                                                                                                                                                                                                          191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HUMAN
                                               DOMAIN
TRANSMEM
DOMAIN
  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116
                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             216
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D(2) d
DRD2.
                                                                                                                                                                     SITE
                                                                                                                                                                                                                       SITE
                                                                                                                        SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HUMAN
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
the human
SEQUENCE FROM N.A. (ISOFORMS 1 AND 2).
SEQUENCE FROM N.A. (ISOFORMS 1 AND 2).
DAI-TOBO R., Sommer B., Bewert M., Herb A., Pritchett D.B., Bach A.,
Shivers B.D., Seeburg P.H.;
"The dopamine D2 receptor: two molecular forms generated by alternative splicing.";
EMBO J. 8:4025-4034(1989).
                                                                                                                                                                                                                                                                                                                                                                                 TIŜSUE-Retina; MEDLINB-90206805; PubMed=2138729; MEDLINB-90206805; PubMed=2138729; MEDLINB-90206805; PubMed M., Pu D.Y., Sambamurti K., Refolo L.M.; Human retina D2 receptor CDNAs have multiple polyadenylation sites and differ from a pituitary clone at the 5' non-coding region."; Nucleic Acids Res. 18:1299-1299(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Striatum;
MEDLINE=20185651; PubMed=10719223;
Seeman P., Nam D., Ulpian C., Liu I.S.C., Tallerico T.;
"New dopamine receptor, D2(Longer); with unique TG splice site, in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Schizophrenia: normal sequence in the dopamine D2 receptor region that couples to G-proteins. DNA polymorphisms in D2."; Neuropsychopharmacology 8:137-142(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. (ISOFORM 1).

BEDLINES 20999344; PubMed=2232362;
Grandy D.K., Marchionni M.A., Makam H., Stofko R.E., Alfano M.,
Frothingham L., Fischer J.B., Burke-Howie K.J., Bunzow J.R.,
Server A.C., Civ-Wolli O.;
"Cloning of the cDNA and gene for a human D2 dopamine receptor.";
Proc. Natl. Acad. Sci. U.S.A. 86:9762-9766(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUB=Retina;
MEDLINE=90136534; PubMed=2137193;
Stormann T.M., Gdula D.C., Weiner D.M., Brann M.R.;
"Molecular cloning and expression of a dopamine D2 receptor from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE-93264902; PubMed=1363862;
Araki K., Kuwano R., Moriti K., Hayashi S., Minoshima S.,
Shimizu N., Katagiri T., Usuh H., Kumanishi T., Takahashi Y.,
"Structure and expression of human and rat D2 dopamine receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=92076439; PubMed=1835903; Dearry A., Falardeau P., Shores C., Caron M.G.; Dagamine receptors in the human retina: cloning of cDNA and localization of mRNA.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=91000955; PubMed=2144985;
Selbie L.A., Hayes G., Shine J.;
"DNA homology screening: isolation and characterization of D2A dopamine receptor subtype.";
Adv. Second Messenger Phosphoprotein Res. 24:9-14(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-93228763; PubMed=8471125;
Seeman P., Ohara K., Ulpian C., Seeman M.V., Jellinger
Tol H.H., Niznik H.B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human brain.";
Brain Res. Mol. Brain Res. 76:132-141(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cell. Mol. Neurobiol. 11:437-453(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [5]
SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Neurochem. Int. 21:91-98(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. (ISOFORM 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             numan retina.";
Mol. Pharmacol. 37:1-6(1990).
```

```
126450; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                    Genew;
MIM; 12
MIM; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
\delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                        MEDLINE=2288257; PubMed=12477932;
A Klausher R.D., Collins F.S., Wagner L., Shemen C.R., Schuler G.D.,
A Altschul S.F., Zeeberg B., Buctow K.H., Schaefer C.F., Bhat N.K.,
A Altschul S.F., Zeeberg B., Buctow K.H., Schaefer C.F., Bhat N.K.,
A Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F.,
A Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F.,
A Brotherton M., Saares M.B., Bonaldo M.F., Casavant T.L., Scheefz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Richards S.A., McEwan P.J., McKernan K.J., Malek J.A., Gubbs R.B.,
A Nilalon D.K., Marxy D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Nilalon D.K., Marxy D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Nilalon D.K., Marxy D.M., Sodergren B.J., Lu X., Gibbs R.A.,
A Rhilang M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakeeley R.W., Touchman J.W., Green B.D., Dickson M.C.,
A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
A Schmerch A., Schein J.B., Jones S.J.W., Marra M.A.;
Human and mouse cDNA, sequences."
             SEQUENCE FROM N.A. (ISOFORM 3).
Suwa M., Sato T., Okouchi I., Azita M., Futami K., Matsumoto S.,
Tsutsumi S., Aburatani H., Asai K., Akiyama Y.,
"Genome-wide discovery and analysis of human seven transmembrane helix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VARIANT MD ILE-154.
MEDLINE=99238502; PubMed=10220438;
MEDLINE=99238502; PubMed=10220438;
MEDLINE=99238502; PubMed=10220438;
MEDLINE=99238502; Pahm S., Breakefield X.O., Ozelius L.J.;
Dohony D., Bressman S., Fahn S., Breakefield X.O., Ozelius L.J.;
"Association of a missense change in the D2 dopamine receptor with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                myoclonus dystonia.";
Proc. Natl. Acad. Sci. U.S.A. 96:5173-5176 (1999).
-!- FUNCTION: This is one of the five types (D1 to D5) of refor dopamine. The activity of this receptor is mediated large and which inhibit adenylyl cyclase.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Itckawa M., Arinami T., Futamura N., Hamaguchi H., Toru M.; "A structural polymorphism of human dopamine D2 receptor, D2 (Ser311->Cys).";
                                                                      receptor genes.";
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                        Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Biochem. Biophys. Res. Commun. 196:1369-1375(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Event=Alternative splicing; Named isoforms=3;
Name=1; Synonyms=D2(Long);
Isofd=Pl4416-1; Sequence=Displayed;
Name=2; Synonyms=D2(Short);
Name=3; Synonyms=D2(Short);
Name=3; Synonyms=D2(Longer);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VARIANT CYS-311.
MEDLINE=94071899; PubMed=7902708;
                                                                                               [12]
SEQUENCE FROM N.A. (ISOFORM 1).
Kidd K.K.;
                                                                                                                                                                    SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                   rissum=Lung;
```

```
between the Swiss Institute of Bioinformatics and the EMBL outstation -
the Buropean Bioinformatics Institute. There are no restrictions on its
use by non-profit institutions as long as its content is in no way
modified and this statement is not removed. Usage by and for commercial
entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LLIAHPKLFPQVFSAKGIVLALVSTWVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYT 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : | | | : | : | | : | | : | | 134 TAVAMPALYNTRYSSKRRVTVMIS--IVWVLSFT------ISCPLLFGINNADQNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        242 GNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTQTLEGDSSEVG-------DQINSKRAKQMAEKSPPEASAKAQPIKGARR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307 APDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL---NG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LTLADLLYCTLLOPPSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LAVADLLVATLVMPWVV--YLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180 TILMGIYFVLGLSSVGIF-----YCLIHRQ-----VKRAAQAL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              213 -----DQYKLRQASIHSN---HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVSAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                302 HHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTS-LKTMSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CO. GO:0005887; C:integral to plasma membrane; TAS.
GO:0005882; C:intermediate filament; TAS.
GO:0005882; C:intermediate filament; TAS.
GO:00064888; F:transmembrane receptor activity; TAS.
GO:0007212; P:dopamine receptor activity; TAS.
GO:0007212; P:dopamine receptor activity; TAS.
GO:0007195; P:dopamine receptor, adenylate cyclase inhibi.
GO:0007195; P:sugral transduction; TAS.
GO:0007165; P:signal transduction; TAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 443;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             183; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     / Match 14.2%; Score 290; DB 1; Local Similarity 25.8%; Pred. No. 7.3e-13; les 114; Conservative 65; Mismatches 183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364 CINPVLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420 AVNPIIYTTFNIEFRKAFLKIL 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; M30625; AAA88024.1; EMBL; X51645; CAB56463.1; EMBL; X51645; CAB56463.1; EMBL; X51642; CAB3786.1; EMBL; X51642; CAB3786.1; EMBL; M29066; AAA52761.1; EMBL; S62197; AAB26819.1; EMBL; S58599; AAB26274.1; OINBERNE; S58586; AAB26274.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB26277.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S58586; AAB2677.1; JOINBERNE; S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; S08417; DYHUD2.
PDB; 1115; 28-FEB-01.
Genew; HGNC:3023; DRD2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a ,
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its muse by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                      PERMINISOLATE #130;

Takahashi A., Hayasaka I., Noaki Y., Saitou N.;

Takahashi A., Hayasaka I., Noaki Y., Saitou N.;

Takahashi A., Hayasaka I., Noaki Y., Saitou N.;

"Dopamine Teceptor D2 (DRD2) gene in Pan troglodytes.";

"In the first of the EMBL/GenBank/DDBJ databases.

"FUNCTION: This is one of the five types (DI to D5) of receptors for dopamine. The activity of this receptor is mediated by G proteins which inhibit adenylyl cyclase (By similarity).

"SUBCELLULAR LOCATION: Integral membrane protein."

"SUBCELLULAR LOCATION: Integral membrane protein."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
IMPLICATED IN CATECHOL AGONIST BINDING
                                                                                          Pan troglodytes (Chimpanzee).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Pan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC. ) (POTENTIAL).
(GLCNAC. .) (POTENTIAL).
(GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMPLICATED IN RECEPTOR ACTIVATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BY SIMILARITY).
IMPLICATED IN RECEPTOR ACTIVATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOINED.
| RECEP_F1_1, 1.
| RECEP_F1_2, 1.
| Transmembrane; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY.
9BF8EA36C988A2E2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                       (Rel. 43, Last sequence update) (Rel. 43, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMPLICATED IN C
(BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED
N-LINKED
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL, AB080603; BAC10668.1; JOINED.
EMBL, AB080604; BAC10668.1; JOINED.
EMBL, AB080605; BAC10668.1; JOINED.
EMBL, AB080606; BAC10668.1; JOINED.
EMBL, AB080607; BAC10668.1; JOINED.
EMBL, AB080608; BAC10668.1; JOINED.
                        15-MAR-2004 (Rel. 43, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182 E
50619 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00237; G PROTEIN
PROSITE; PS50262; G PROTEIN
G-protein coupled receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AB080609; BAC10668.1;
STANDARD;
                                                                 D(2) dopamine receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37
60
71
71
108
1130
1174
1174
1186
2210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17
23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
17
23
107
443 AA;
                                                                                                                                                               SEQUENCE FROM N.A
                                                                                                                                   NCBI_TaxID=9598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Multigene family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                        L5-MAR-2004
                                                    5-MAR-2004
D2DR PANTR
P60026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
CARBOHYD
CARBOHYD
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SITE
```

```
15;
                                                                                                                                                                                                                                                                                                                            262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 RKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYVNS 419
                                                                                                                                                  LTLADLLYCTLLQPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY 119
                                                                                                                                                                                        76 LAVADLLVATLVMPWVV--YLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRY 133
                                                                                                                                                                                                                          120 LLIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYT 179
                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          302 HHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTS-LKTMSR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307 APDSSSERGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL---NG 363
                                                                                                                                                                                                                                                                                                                                                                                                                  242 GNCTHPEDMKLCTVIMKSNGSPPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPS 301
                                                                            61
                                                                                                            22 FNGSDGKADRPH----YNYXATLLTLLIAVI-VFGNVLVCMAVSREKALQTTTNYLIVS 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A., AND CHARACTERIZATION.
STRAIN-CD-1; TISSUE-Brain, and Kidney;
MEDLINE-98292136; PubMed=9630362;
Xiao L., Scofiald M.A., Jeffries W.B.;
"Molecular cloning, expression and characterization of cDNA encoding a mouse alphala-adrenoceptor.";
                                                                          2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIAN
                                                                                                                                                                                                                                                              134 TAVAMPMLYNTRYSSKRRVTVMIS--IVWVLSFT------ISCPLLFGLNNADQNE
                                                                                                                                                                                                                                                                                                                                                                              213 -----DQYKIRQASIHSN---HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVSAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTQTLEGDSSEVG-------DQINSKRAKQMAEKSPPEASAKAQPIKGARR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J. Neurochem. 65:2287-2292 (1995).

-!- FUNCTION: This alpha-adrenergic receptor mediates its action by association with G proteins that activate a phosphatidylinositol-calcium second messenger system. Its effect is mediated by G(q) and G(11) proteins.
                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>а</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alonso-Llamazares A., Zamanillo D., Casanova E., Ovalle S., Calvo Chinothetru M.A.,
"Molecular cloning of alpha 1d-adrenergic receptor and tissue distribution of three alpha 1-adrenergic receptor subtypes in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                      80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-FEB-2003 (Rel. 41, Last sequence update)
10-0CT-2003 (Rel. 42, Last annocation update)
Albha-1A adrenergic receptor (Alpha 1A-adrenoceptor) (Alpha-1C
adrenergic receptor).
                                                                                                                                                                                                                                                                                                    ---YCLIHRQ----VKRAAQAL-
Length 443;
                                      Indels
14.2%; Score 290; DB 1; L 25.8%; Pred. No. 7.3e-13; iive 65; Mismatches 183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364 CINPVLYAAMNROFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Br. J. Pharmacol. 124:213-221(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=96064818; PubMed=7595531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATAA MOUSE STANDARD; F
P97718; O54913;
15-UTL-1998 (Rel. 36, Created)
28-FEB-2003 (Rel. 41, Last sequ
10-OCT-2003 (Rel. 42, Last ann
                                                                                                                                                                                                                                                                                                      180 TILMGIYFVLGLSSVGIF --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 197-280 FROM N.A.
                      al Similarity 25.8
114; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADRAIA OR ADRAI
                                                                                                                                                      62
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mouse.";
                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A1AA_MOUSE
                                                                              ઠ
                                                                                                              g
                                                                                                                                                      8
                                                                                                                                                                                      g
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
LZJ
MUTAGENESIS OF ALA-293.
MENT.TNR=92112850; PubMed=1346134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=89017157; PubMed=2845398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; J04084; AAA58964.1; -.
                                                                                                                                                                                                         STANDARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              83
105
1115
1115
1161
1161
224
224
235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10036;
                                                                                                                                                                                                         ALAB MESAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A4049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                     A1AB_
                                                                                                                                                                                                                                     THE FEFFE FEFFE TO DESCRIPTION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY
                                          ò
                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BYML outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPLWPIYILVP---VVCTCSFDRIRG 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQAL------DQYKLRQASIH 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----PAEG---SGVSSAKNKT------HFSVRLL 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KOMAEKSPPEASAKAOPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EPGYVLFSALGSFYVPLTIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLR---IH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |:|:|::|| NASEGS-NCTHPPAQVNISKAILLGVILGGLIIFGVLGVILVILSVACHRHLHSVTHYYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60 ANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NSSDANFSCYHESVLGYRYVAVSWGVVVA----VTGTVGNVLTLLALAIQPKLRTRFNLLI
MILULAR LOCATION: Integral membrane protein.
Carboxyl-terminal Ser or Thr residues may be phosphorylated
                                               (By similarity). SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
PHOSPHORYLATION (BY PKA) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S-palmitoyl cysteine (Potential). 3649A5A53DBD34DA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Palmitate
                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PRO0237; GFCKRHODOPSN.
PROSITE; PS00237; GFCKRHODOPSN.
PROSITE; PS00237; G-PROTEIN RECEP_F1_1; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Multigene family; Phosphorylation; Lipoprotein; Panatato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 (FOIENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B (FOIENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL)
N-LINKED (GLCNAC. .)
                                                                                                                                                                                                                                                                                                                                                                           pressure; IMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14.1%; Score 288.5; DB 1; 23.1%; Pred. No. 9.8e-13; ive 78; Mismatches 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIAL)
                                                                                                                                                                                                                                                                                                                       EMBL; S80220; AAB47044.1; ALT_INIT.
MGD; MG1:104773; Adraia.
GO; GO:0008217; P:regulation of blood |
InterPro; IPR000276; GPCR_Rhodpsn.
PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51762 MW;
                                                                                                                                                                                                                                                                                                   EMBL; AF031431; AAC02658.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 23...
Best Local 97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          143
167
181
181
205
273
297
305
466
                                            similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    466 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RKNV----
SUBCELLULAR
PTM: Carboxy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
```

g

g

ઠે

g

ð

8 8 8

g ò

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified anothris statement is not removed. Usage by another is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
---KAAKTLGIVVGCFVLCWLPFFLVMPIGS 296
                                                                                                                             344 ---RVQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSI-----LKRGPRSFHRL 395
                                                                                                                                                                                                                J. Biol. Chem. 267:1430-1433(1992).
-!- FUNCTION: This alpha-adrenergic receptor mediates its action by association with G proteins that activate a phosphatidylinositol-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cotecchia S., Schwinn D.A., Randall R.R., Lefkowitz R.J.,
Caron M.G., Kobilka B.K.,
"Molecular cloning and expression of the cDNA for the hamster alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         calcium second messenger system.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mesocricetus auratus (Golden hamster).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
Mesocricetus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lefkowitz R.J.;
"Constitutive activation of the alpha 1B-adrenergic receptor by a mino acid substitutions at a single site. Evidence for a region which constrains receptor activation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HSSP, P22274, IMMH.

INDERFROOD TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO THE TO TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=92112850; PubMed=1346134;
Kjelsberg M.A., Cotecchia S., Ostrowski J., Caron M.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Phosphorylation; Lipoprotein; Palmita 45 EXTRACELLULAR (POTENTIAL). 70 1 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL) 5 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Alpha-1B adrenergic receptor (Alpha 1B-adrenoceptor)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1-adrenergic receptor.";
Proc. Natl. Acad. Sci. U.S.A. 85:7159-7163(1988)
```

CC Name=Long; CC Name=Short; Sequence=Displayed; CC Name=Short; Sequence=VSP 001869; CC Name=Short; Belongs to family I of G-protein coupled receptors. CC -i- SIMILARITY: Belongs to family I of G-protein coupled receptors. CC This SWISS-PROT entry is copyright. It is produced through a collaboration couplement the Swiss Institute of Bioinformatics and the BMBL outstation. CC the Buropean Bioinformatics Institute. There are no restrictions on its concern by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial contines requires a license agreement (See http://www.isb-sib.ch/announce/CC or send an email to license@sib.ch).	EMBL; XS1657; CAA35970.1; PIR; S08463; DYBOD2. InterPro; IPRO00276; GPCR_Rho Pfam: PF00017; Tul; 1. PRINTS; PR00237; GPCRHDODPSN PROSITE; PS00237; G_PROTEIN_R PROSITE; PS02626; G_PROTEIN_R G_PCOTEIN COUPLED receptor; T Multigene family; Alternative DOWAIN 137 174 174 174 174 174 174 174 174 174 17	EM 72 97 2 (POTENTIAL EM 198 108 EXTRACELLULALIAN EM 199 130 (YTOPLASMIC EM 152 174 4 (POTENTIAL EM 197 197 197 (POTENTIAL EM 197 194 (POTENTIAL EM 197 194 (POTENTIAL EM 197 194 (POTENTIAL EM 197 194 (POTENTIAL EM 197 194 (POTENTIAL EM 197 197 (POTENTIAL EM 197 197 (POTENTIAL EM 194 (PY SIMILARI I 197 197 (POTENTIAL EM 194 (PY SIMILARI I 197 197 (POTENTIAL I 194 (PY SIMILARI I 197 197 (POTENTIAL I 197 197 (POTENTIAL I 197 197 (POTENTIAL I 197 197 (POTENTIAL I 197 197 (POTENTIAL I 197 197 (POTENTIAL I 197 197 (POTENTIAL I 197 (P	CARBOHY CARBOHY CARBOHY DISULFI VARSPLI SEQUENC QUERY MATC Rest Local Matches 1	
, , , , , , , , , , , , , , , , , , ,	Query Match Query Match Best Local Similarity 25.1%; Pred. No. 1.16-12; Matches 103; Conservative 74; Pred. No. 1.16-12; Matches 103; Conservative 74; Mismatches 162; Qy 2 WNS-SDANFSCYPESVLGYRYVAVSWGVVAVTGTVGNVLTLLALALQPKL 51 Db 17 WGELKDANFTGPNQTSSNSTLPQLDVTRAISVGLVLGAFILLFANGVCTLLFASNSVSILTL 111 Qy 52 RTRFNLLIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATPCRVFGLLLFASNSVSILTL 111 Db 77 RTPTNYFIVNLAADLLSFTVLPFSATLEVLGYWVLGRIFCDIMAAVDVLCCTASILSL 136 Qy 112 CLIALGRYLLIAHPKLPPQVFSAKGIVLALVSTWVVG-VASFAPLWPIXILVPVVCTC 168	137 CAISIDRYIGNEYSLOYPTLYTRRAILALS/WWLSTY/ISIGPLIGHTEPAPNDD 169 SFDRIRGRPYTTILMGI-YPVLGLSSVGIPYCLIHRQVKBAAQALDQYKLRQASIHSNHV 193 KECGVTEEPFYALFSSLGSFYIPLAVILWYCRYTVISIGPLIGHKEPAPNDD 169 SFDRIRGRPYTTILMGI-YPVLGLSSVGIPYCLIHRQVKBAAQALDQYKLRQASIHSNHV 193 KECGVTEEPFYALFSSLGSFYIPLAVILWYCRYTVINARTTKNLBAGWKEMS 228 ARTDEAMPGRPOELDSRLASGGPSEGISSEPVSAATTQTLEGGDSSEVGDOINSKRAKQWA 247NSKELTLRIHSKNFHE	SULT 8 DR BOVIN DR BOVIN D2DR BOVI D2028; 01-FEB-15 28-FEB-26 D(2) dopa DRD2. auru Eukaryote Eukaryote Bos tanru	OC NOBL TaxID=9913; RN [1] RP SEQUENCE FROM N.A. (ISOFORMS LONG AND SHORT). RX MEDLINE=90136899; PubMed=2137198; RA Chio C.L., Hess G.F., Graham R.S., Huff R.M.; RA caddate nucleus.; RT caddate nucleus.; RI Nature 343:266-269(1990). CC -!- FUNCTION: This is one of the five types (D1 to D5) of receptors CC for dopamine. The activity of this receptor is mediated by G CC SUBCELLULAR LOCATION: Integral membrane protein. CC ALTERNATIVE PRODUCTS: CC ALTERNATIVE PRODUCTS:

```
93 --YLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKR 150
                                                                                                                                                                                                                                                                                                                                                     207 LVYIKIYIVLRRRRRKRVNTKRSSRAFRANLKAPLKGNCTHPEDMKLCTVIMKSNGSFPVN 266
                                                                                                                                                                                                                                                                   79 DTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKG 136
                                                                                                                                                                                                                                                                                                                                                                                               191 LSSVGIFYCLIHRO----VKRAAQAL-------DOYKLROASIHSN---HVA 228
                                                                                                                                                                                                  19 YRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSV 78
                                                                                                                                                                                                                      137 IVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTTILMGI-----YFVLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              229 RIDEAMPGRFQELD-SRLASGGPSEGISSEPVSAATIQILEGDSSEVG------
                                                                                                                                                                    65; Mismatches 181; Indels 60; Gaps
(BI SIMILARIII).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
BY SIMILARITY.
Missing (in isoform Short).
//FIId=VSP 001869.
W; 67437197629301C7 CRC64;
                                                                                                                                    14.1%; Score 288; DB 1; Length 444; 26.8%; Pred. No. 1e-12;
                                                                                                     444 AA; 50671 MW;
                                                                                                                                                                      Matches 112; Conservative
                                                                                                                                                       Similarity
        17
23
107
242
                      CARBOHYD
CARBOHYD
DISULFID
                                                                                                       SEQUENCE
                                                                        VARSPLIC
                                                                                                                                       Query Match
                                                                                                                                                       Local
                                                          FFFS
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                  심
                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                 \delta
                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                             Bos taurus (Bovine).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Cetartiodactyla, Ruminantia, Pecora, Bovoidea,
Bovidae, Bovinae, Bos.
                                                                                                     01-FEB-1991 (Rel. 17, Created)
01-FEB-1991 (Rel. 17, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
                                                                        444 AA.
```

```
SOLUTION TO THE TERMINATION OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMINATE OF THE TERMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
----DQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFAL 330
                                                                                                                       327 KNGHAKTVNPKIAKIFEIQSMPNGKTRTS-LKTMSRRKLSQQKEKKATQMLAIVLGVFII 385
                                                                                                                                                                           SYIPFLLLNILDARVQAPRVVHMLAANLTWL---NGCINPVLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                     CWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYVNSAVNPIYTTFNIEFRKAFLKIL 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gao B., Kunos G.;
"Isolation and characterization of the gene encoding the rat alpha 1B
adrenergic receptor.";
dene 131:343-247(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEQUENCE OF 1-253 FROM N.A.

MEDLINE-95081407; PubMed=789580;

Kansaski M., Matsubara H., Murasawa S., Masaki H., Nio Y., Inada M.;

Kansaski M., Matsubara H., Murasawa S., Masaki H., Nio Y., Inada M.;

"CAMP responsive element mediated regulation of the gene
transcription of the alpha 1B adrenergic receptor by thyrotropin.";

J. Clin. Invest. 94:2245-2254 (1994).

I. FUNCTION: This alpha-adrenergic receptor mediates its action by
association with G proteins that activate a phosphatidylinositol-
calcium second messenger system.

SUBGELLUJAR LOCATION: Integral membrane protein.

SUBGELLUJAR LOCATION: Integral membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

MEDLINES-91177889, PubMed=1706716;
Lomasney J.W., Cotecchia S., Lorenz W., Leung W.-Y., Schwinn D.A., Yang-Feng T.L., Brownstein M., Lefkowitz R.J., Caron M.G.;
Myolecular cloning and expression of the cDNA for the alpha 1A-adrenergic receptor. The gene for which is located on human chromosome 5.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=50192094; PubMed=2156222;
Voigt M.M., Kispert J., Chin H.;
"Sequence of a rat brain cDNA encoding an alpha-1B adrenergic
                                                                                                                                                                                                                                                                                                                                                                    PIS823; Q63215;
01-APR-1990 (Rel. 14, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
10-CUT-2003 (Rel. 42, Last annotation update)
Alpha-1B adrenergic receptor (Alpha 1B-adrenoceptor).
                                                                                                                                                                                                                                                                                                                                                    Z
                                                                                                                                                                                                                                                                                                                                                  515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic Acids Res. 18:1053-1053(1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-Sprague-Dawley; TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biol. Chem. 266:6365-6369(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=94010315; PubMed=8406017;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X51585; CAA35934.1; -.
EMBL; M60655; AAA63478.1; -.
EMBL; L08610; AAA40647.1; -.
                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus (Rat)
                               267
                                                                              276
                                                                                                                                                                           331
                                                                                                                                                                                                                          386
                                                                                                                                                                                                                                                                                                                             A1AB_RAT
ID A1AB RAT
                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                셤
                                                                      ò
```

```
12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            45 AISVGLVLGAFILFAIVGNILVILSVACNRHLRTPTNYFIVNLAIADLLLSFTVLFFSAT 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298 IVVGM-----FILCWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNPIIYPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALVSTWVVG-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       165 ALLSVWVLSTVISIGPLLGWK----EPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196 IFYCLIHROVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               256 SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            316 KVTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23 AVSWGVVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80 TYLHLHWRIGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221 VMYCRVYIVAKRITKNLEAGVMKEMS-------NSKELTLRIHSKNFHE---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
BY SIMILARITY.
S-Palmitoyl Cysteine (Potential).
GRI - LSF (IN REF. 2).
Y -> C (IN REF. 1 AND 4).
C -> C (IN REF. 1 AND 4).
C -> C (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
C -> Y (IN REF. 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14.1%; Score 287.5; DB 1; Length 24.9%; Pred. No. 1.3e-12; ive 71; Mismatches 151; Indels
                                      HSSP; P29274; INMH.

InterPro; IPR006276; GPGR_Rhodpsn.

InterPro; IPR00617; Thm 1; 1.

PRIMTS; PR00617; GFGRRHODDPSN.

PROSITE; PS00237; GFRRHODDPSN.

PROSITE; PS00237; GFROTEIN_RECEP_F1_1; 1.

PROSITE; PS00262; GFROTEIN_RECEP_F1_2; 1.

PROSITE; PS00262; GFROTEIN_RECEP_F1_2; 1.

PROSITE; PS00262; GFROTEIN_RECEP_F1_2; 1.

PROSITE; PS00262; GFROTEIN_RECEP_F1_1; 1.

PROSITE; PS00262; GFROTEIN, RECEP_F1_1; 1.

HOSPHOTEIN; Lipoprotein; Palmitate DOMAIN (FOTENTIAL).
                                                                                                                                                                                                                       1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                            6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF0C3759F80C3135 CRC64;
                                                                                                                                                                                                                                                                                                                                             4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                   S (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                       CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                        3 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           373 MNRQFRQAYGSILK---RGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56585 MW;
BAA06806.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                        Query Match
Best Local Similarity
Local 96; Conserva
    EMBL; D32045; BAA068(
PIR; JC1525; JC1525.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            511
515 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4440
4440
484
493
                                                                                                                                                                                                                                                                                   DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       263
                                                                                                                                                                                                                           FRANSMEM
                                                                                                                                                                                                                                                                                                                                             FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                     RANSMEM
                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
```

us-10-029-436-2.rsp

```
364 CINPVLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :||::|| :|| 441 | 3 | 3 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 | 441 
                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
443 AA;
                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [3]
SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lepor H., Hart:
Gluchowski C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Graham R.M.;
                                                                                                            Matches 113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HUMAN
SEQUENCE
                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AIAB HUMAN
ID AIAB H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Thurkauf A., Hutchinson A., Peterson J., Cornfield L., Meade R., Houston K., Harris K., Ross P.C., Gerber K., Ramabhadran T.V.; Houston K., Harris K., Ross P.C., Gerber K., Ramabhadran T.V.; P. 2-phenyl.4-(aminomethyl)imidazoles as potential antipsychotic agents. Synthesis and dopamine Dz receptor binding."; J. Med. Chem. 38:2231-2255(1995).
-!- FUNCTION: This is one of the five types (D1 to D5) of receptors for dopamine. The activity of this receptor is mediated by G proteins which inhibit adenylyl cyclase.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
IMPLICATED IN CATECHOL AGONIST BINDING:
                                                                                                                                                                                                                                                                                                                                    Cercopithecus aethiops (Green monkey) (Grivet)
Eukaryota, Metazoa, Chordata, Graniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Cercopithecidae,
Cercopithecinae, Cercopithecus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMPLICATED IN RECEPTOR ACTIVATION (BY SIMILARITY).
IMPLICATED IN RECEPTOR ACTIVATION (BY SIMILARITY).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL, U18547, AAB60369.1; -.

InterPro; IPR000276; GPCR_Rhodpsn.

Pfam; PF00001; 7Fm_1; 1.

PRINTS; PF00027; GFRHODDPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G_Protein coupled receptor; Transmembrane; Glycoprotein; Multigene family.

DOMAIN

EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOPIASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                s (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                             01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last sequence update)
16-0CT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY)
                                                                                                                                             443 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCN)
N-LINKED (GLCN)
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
   351 SSKEFKRAFMRILGCQCRGGRRRRR 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Brain;
MEDLINE=95302446; PubMed=7783157;
                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                       D(2) dopamine receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #05
#129
193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
17
23
182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9534;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2111
3374
3398
430
430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197
                                                                                                                                             CERAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SITE
                                                                                                                                             PAPERTY TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TENT TO THE TEN
   셤
```

```
361 RKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYVNS 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                        120 LLIAHPKLFPQVFSAKGIVLALVSTWVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYT 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----DOYKLROASIHSN---HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVSAA 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     263 TTQTLEGDSSEVG-------DQINSKRAKQMAEKSPPEASAKAQPIKGARR 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307 APDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL---NG 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   242 GNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPS 301
                                                                                                                                                                                                                                    22 FNGSDGRADRPH----YNYYATLLTLIAVI-VFGNVLVCMAVSREKALQTTINYLIVS 75
                                                                                                                                                                                           2 WNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIAN 61
                                                                                                                                                                                                                                                                                                                           62 LTLADLLYCTLLQPFSVDTYLHL - - HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                302 HHOLTLPDPSHHGLHSTPDSPAKPEKNGHAKNHPKIAKIFELQTMPNGKTRTS-LKTMSR
                                                                                                                                                                                                                                                                                                                                                                 "Genomic organization and expression of the human alpha 1B-adrenergic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The alpha 1-adrenergic receptor that mediates smooth muscle contraction in human prostate has the pharmacological properties the cloned human alpha 1c subtype."; Mol. Pharmacol. 45:703-708(1994).
                                                                                                                            80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE=93016158; PubMed=1328250;
Ramarao C.S., Denker J.M., Perez D.M., Gaivin R.J., Riek R.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180 TILMGIYFVLGLSSVGIF-----YCLIHRQ-----VKRAAQAL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=94239386; PubMed=8183249;
Forray C., Bard J.A., Wetzel J.M., Chiu G., Shapiro E., Tang
Lepor H., Hartig P.R., Weinshank R.L., Branchek T.A.,
                                                                 Length 443;
                                                          14.1%; Score 287; DB 1; Length 44 25.6%; Pred. No. 1.2e-12; Live 66; Mismatches 183; Indels
50590 MW; 34165BE6460B524D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-1994 (Rel. 29, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Alpha-1B adrenergic receptor (Alpha 1B-adrenoceptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       519 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       receptor.";
J. Biol. Chem. 267:21936-21945(1992)
```

```
351 SSKEFKRAFVRILGCQCRGRRRRRR 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        373 MNRQFRQAYGSILK---RGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                  SPECIES=Rat;
MEDLINE=90081872; PubMed=2531847;
      llarity 24.9%; Pr
Conservative 71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (Mouse), and Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nature 336:783-787(1988)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D(2) dopamine receptor.
      Best Local Similarity
Matches 96; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPECIES=Rat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
D2DR_MOUSE
ID D2DR_MOUSE
AC P13953;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                    \dot{\delta}
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R GO; GO: 0005887; C: integral to plasma membrane; TAS.

R GO; GO: 0004937; F: alphal-adrenergic receptor activity; TAS.

R GO; GO: 0004937; F: alphal-adrenergic receptor activity; TAS.

R GO; GO: 0007267; P: cell-cell signaling; TAS.

R GO; GO: 0007186; P: G-protein coupled receptor protein signalin. .; TAS.

R GO; GO: 0007186; P: G-protein signaling, coupled to cAMP nucleo. .; TAS.

R GO; GO: 0007186; P: G-protein signaling, coupled to cAMP nucleo. .; TAS.

R GO; GO: 0007186; P: G-protein signaling, coupled to cAMP nucleo. .; TAS.

R GO; GO: 0007186; P: G-protein signaling, coupled to cAMP nucleo. .; TAS.

R PROMOST; PROMOST; TAME; P: TAME; PROMOST; G-protein RECEP_FI.; 1.

R PRINTS; PROMOST; G-protein RECEP_FI.; 1.

R PROSITE; PSO0237; G-protein RECEP_FI.; 1.

R PROSITE; PSO0262; G-protein RECEP_FI.; 1.

R G-protein coupled receptor; Transmembrane; G-protein coupled receptor; Transmembrane; T-powalm.

T DOMAIN: TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED FI. TANSMEMBREED 
MEDLINE=95114877; PubMed=7815325; Schwinn D.A., Johnston G.I., Page S.O., Mosley M.J., Wilson K.H., Worman N.P., Campbell S., Fidock M.D., Purness L.M., Parry. Smith D.J., Peter B., Bailey D.S.; Parry. Smith D.J., Peter B., Bailey D.S.; advenced; receptors: sequence corrections and direct comparison with other species homologues."; J. Pharmacol. Exp. Ther. 272:134-142(1995).

--- FUNCTION: This alpha-adrenergic receptor mediates its action by association with G proteins that activate a phosphatidylinositol-calcium second messenger system.
--- SUBCELLULAR LOCATION: Integral membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S-palmitoyl cysteine (Potential).
R -> RG (IN REF. 2).
MISSING (IN REF. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C4727A147D0A1780 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FOLITARGO GLCHAC. . .) (1
N-LINKED GLCHAC. . .) (1
N-LINKED GLCHAC. . .) (1
N-LINKED GLCHAC. . .) (1
N-LINKED GLCHAC. . .) (1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; M99589; -; NOT_ANNOTATED_CDS.
EMBL; M99590; -; NOT_ANNOTATED_CDS.
EMBL; U308655, AA860352.1; -.
EMBL; L31773; AA85485.1; -.
PIR; A45121; A45121.
HSSP; P29274; 1MMH.
Genew; HGNC278; ADRAIB.
MIM; 104220; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 56778 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45
70
83
105
115
161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 519 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
CARBOHYD
CARBOHYD
DISULFID
LIPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FRANSMEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
```

DB 1; Length 519;

Score 286.5;

14.0%;

```
12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            298 IVVGM-----FILCWLPFFIALPIGSLFSTIKPPDAVFKVVFWLGYFNSCLNPIIYPC 350
                                                                              80 TYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKGIVL 139
                                                                                                                                                    140 ALVSTWVVG-VASFAPL--WPIYILVPVVCTCSFDRIRGRPYTTILMGI-YFVLGLSSVG 195
                                                                                                                                                                                                                                          165 ALLSVWVLSTVISIGPLLGWK----EPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVIL 220
                                                                                                                                                                                                                                                                                196 IFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGIS 255
                                                                                                                                                                                                                                                                                                                        ---NSKELTLRIHSKNFHE--- 262
                                                                                                                                                                                                                                                                                                                                                            256 SEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDSSSEFG 315
                                                                                                                                                                                                                                                                                                                                                                                    263 ------DILSSTKAK----GHNPRSSIAVKLFKFSRE-KKAAKTLG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                      316 KVTRMCFAVFLCFALSYIPFLL---LNILDARVQAPRVVHMLAANLTWLNGCINPVLYAA 372
                                                      23 AVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD
                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WEDLINE=90081866; PubMed=2531846;
Eidne K.A., Taylox P.L., Zabavnik J., Saunders P.T.K., Inglis J.D.;
"D2 receptor, a missing exon.";
Nature 342:865-865(1988)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. NCBI_TaxID=10090, 10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Alternative splicing directs the expression of two D2 dopamine receptor isoforms.";
Nature 342:923-926(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Giros B., Sokoloff P., Martres M.-P., Riou J.-F., Emorine L.J., Schwartz J.-C.;
                  67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-241 AND 271-444 FROM N.A.
SPECIES-Rat; TISSUE-Brain;
MEDLINE-89082643; PubMed=2974511;
MEDLINE-87, van Tol H.H.M., Grandy D.K., Albert P., Salon J., Christie M., Machida C.A., Neve K.A., Civelli O.;
"Cloning and expression of a rat D2 dopamine receptor CDNA.";
Pred. No. 1.5e-12;
; Mismatches 151; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  444 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPECIES=Rat;
```

```
Best Local Sim
Matches 112;
                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SITE
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Differential expression of the mouse D2 dopamine receptor isoforms.";
               Sibley D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-90201380; PubMed=2138567; O'Dowd B.F., Nguyen T., Tirpak A., Jarvie K.R., Israel Y., Seeman P., Nizhik H.B.; Gloning of two additional catecholamine receptors from rat brain."; FEBS Lett. 262:8-12(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTERACTION WITH NEURABIN II.
MEDLINE=99321921; PubMed=10391935;
Smith F.D., Oxford G.S., Milgram S.L.;
"Association of the D2 dopamine receptor third cytoplasmic loop with spinophilin, a protein phosphatase-1-interacting protein.";
J. Biol. Chem. 274:19894-19900(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to D5) of receptors is mediated by G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           οĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WEDLINE=92333328; PubMed=1321233;
Cox B.A., Henningsen R.A., Spanoyannis A., Neve R.L., Neve K.A.;
"Contributions of conserved serine residues to the interactions of
                                                                                                                                                                                                                                                                                                                                                       Miller J.C., Wang Y., Filer D., "Identification by sequence analysis of a second rat brain cDNA indeptification by sequence another."; ' another dopamine (D2) receptor."; ' Biochem. Biophys. Res. Commun. 166:109-112(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Montmayeur J.P., Bausero P., Amlaiky N., Maroteaux L., Hen R.,
                                                                                                                                                            by the
Monsma F.J. Jr., McVittie L.D., Gerfen C.R., Mahan L.C., Sil
"Multiple D2 dopamine receptors produced by alternative RNA
splicing.";
                                                                                                                                                                                                                                         SPECIES-Rat; STRAIN-Sprague-Dawley;
Taylor P.L., Inglis J.D., Eidne K.A.;
Submitted (OCT-1990) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                           Rao D.D., McKelvy J., Kebabian J., MacKenzie R.G.;
"Two forms of the rat D2 dopamine receptor as revealed
PDGJymerase chain reaction.";
PEDS Lett. 263:18-22(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDILINE 30308566; PubMed=1358063; Naylor L.H.; Livingstone C.D., Strange P.G., Naylor L.H.; Mollecular modelling of D2-like dopamine receptors."; Blochem. J. 287:277-282(1992).
-!- FUNCTION: This is one of the five types (D1 to D5) for dopamine. The activity of this receptor is med proteins which inhibit adenylyl cyclase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MUTAGENESIS OF SER-193; SER-194; SER-197 AND SER-420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: Integral membrane protein. ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=Long;
Isold=P13953-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ligands with dopamine D2 receptors."; J. Neurochem. 59:627-635(1992).
                                                                                                                                                                                                                                                                                                                         SPECIES=Rat;
MEDLINE=90147685; PubMed=2137336;
                                                                                                              SPECIES=Rat;
MEDLINE=90235966; PubMed=2139615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=91122293; PubMed=1991517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. (ISOFORM A).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEBS Lett. 278:239-243(1991).
                                                                                                                                                                                                                                                                                                         SEQUENCE OF 242-270 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 242-270 FROM N.A.
                                                              Nature 342:926-929(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3D-STRUCTURE MODELING.
                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                           SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Name=Short;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPECIES=Mouse;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SPECIES=Rat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SPECIES=Rat;
```

```
Isold=P13953-2; Sequence=VSP 001871;
-!- SIMILARITY: Belongs to family I of G-protein coupled receptors.

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S->A: SMALL DECREASE IN AGONIST BINDING. COMPLETE LOSS OF AGONIST-MEDIATED CYCLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S->A: SMALL DECREASE IN AGONIST BINDING.
18-FOLD REDUCTION OF AGONIST-MEDIATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BINDING. 200-FOLD REDUCTION OF AGONIST-MEDIATED CYCLIC AMP INHIBITION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMPLICATED IN CATECHOL AGONIST BINDING.
IMPLICATED IN RECEPTOR ACTIVATION.
IMPLICATED IN RECEPTOR ACTIVATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S->A: MODERATE DECREASE IN LIGAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYCLIC AMP INHIBITION.
S->A: MODERATE DECREASE IN LIGAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13.9%; Score 283.5; DB 1; Length 444; 25.6%; Pred. No. 2e-12; Live 70; Mismatches 185; Indels 71;
                                                                                                                                                                                                                                                                                                                                                                                                        EMEL, X53278; CAA37373.1; -.

REMEL, M2241; AAA41074.1; -.

REMEL, M36831; AAA41074.1; -.

REMEL, X56674; CAA39543.1; -.

REMEL, X56674; CAA39543.1; -.

REMEL, X56774; CAA3969.1; -.

REMEL, X56774; CAA3969.1; -.

REMEL, X56774; CAA3969.1; -.

REMEL, X56774; CAA3969.1; -.

REMEL, X56774; CAA3969.1; -.

REMEL, X56774; CAA3969.1; -.

REMEL, RSO0176; GPCR_Rhodpsn.

REMEL, PRO0017 7tm 1, 1.

REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REMEL, REME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Missing (in isoform Short). /FIId=VSP_001871.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
INTERACTS WITH NEURABIN II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
2 (POTENTIAL).
3 (ASTRACELLUIAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E -> D (IN REF. 5).
G -> R (IN REF. 5).
N -> G (IN REF. 5).
216E56CEESCA32FB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BINDING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99 B
173 G
180 N
50903 MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           374
193
194
197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     444 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99
173
180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2211
3399
3999
4431
1211
194
194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
```

```
484
modified and this statement is not removentities requires a license agreement ((or send an email to license@lsb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            51466 MW;
                                                                               EMBL; J05426; AAA30374.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                       51
644
99
1122
1143
1167
202
203
203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    345
346 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                    LOCMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      235
                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOD RES
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIPID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          219
                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
OAR2_LOCMI
ID OAR2_LOC
AC Q25322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BNBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                213
                                                                                                                                                                                                                        133
                                                                                                                     LLIAHPKLFPQVFSAKGIVLALVS-TWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPY 178
                                                                                                                                                          134 TAVAMPMLYNTRYSSKRRVTVMIAIVWVLSFTISCPL----LFGLNNTDQNECIIANPA 188
                                                                                                                                                                                                                                                                         267
                                                                                                                                                                                                                                                                                                              DMKLCTVIMKSNGSFPVNRRRMDAAR--RAQELEMEMLSSTSPPERTRYSPIPPSHHQLT 306
                                                                                                                                                                                                                                                                                                                                                    -----DQINSKRAKQMAEKSPPEASAKAQPIKGARRAPDS 310
                                                                                                                                                                                                                                                                                                                                                                                                                               367
                                                                                                                                                                                                                                                                                                                                                                                                                                                      QCKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDC-NIPPVLYSAFTWLGYVNSAVNP 424
        75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Schwinn D.A., Lomasney J.W., Lorenz W., Szklut P.J., Fremeau R.T. Jr., Yang-Feng T.L., Caron M.G., Lefkowitz R.J., Cotecchia S.; Molecular cloning and expression of the cDNA for a novel alpha 1-adrenergic receptor subtype...; J. Biol. Chem. 265:8183-8189(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                               SSEFCKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTWL---NGCINP
        FNGSEGKADRPH----YNYYAMLLTLIFII-VFGNVLVCMAVSREKALQTTTNYLIVS
                                                                                                                                                                                                                                                                         QYKLRQASIHSN-----HVARTDEAMPGRFQELD-SRLASGGPSEGISSEPVSAATTQTL
                                                                                                                                                                                                                                                                                                                                                                             TTILMGI----YFVLGLSSVGIFYCLIHRQ----VKRAAQAL------D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDINE-2087349; PubMed=1966743;
Schwinn D.A., Cotecchia S., Lorenz W., Caron M.G., Lefkowitz R.J.;
Schwinn D.A., Cotecchia S., Lorenz W., Caron M.G., Lefkowitz R.J.;
"The alpha 1C-adrenergic receptor a new member in the alpha 1-
adrenergic receptor family.";
Trans. Assoc. Am. Physicians 103:112-118(1990).
-!- FUNCTION: This alpha-adrenergic receptor mediates its action by
association with G proteins that activate a phosphatidylinosicol-
calcium second messenger system. Its effect is mediated by G(q)
and G(11) proteins.
-!- SUBCELELULAR LOCATION: Integral membrane protein.
                                            LTLADLLYCTLLQPFSVDTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
10-DCT-2003 (Rel. 42, Last annotation update)
Alpha-1A adrenergic receptor (Alpha 1A-adrenoceptor)
adrenergic receptor).
ADRAIA ON ADRAIG.
Bos taurus (Bovine).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=90243698; PubMed=1970822;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VLYAAMNRQFRQAYGSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                      EGDSSEVG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BOVIN
                                                                                                                                                                                                                                                                                                                                                      268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    366
                                            62
                                                                                                                     120
                                                                                                                                                                                                179
                                                                                                                                                                                                                                                                           214
                                                                                                                                                                                                                                                                                                                249
                                                                                                                                                                                                                                                                                                                                                                                                                               311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A1AA BOV
P18130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
ALAA BOOVIN
TO ALAA BOOVIN
TO 10-1004
DT 10-0CT
DE ALABATA
DE ALABATA
DE ALABATA
DE ALABATA
DE ALABATA
DE ALABATA
COC MAMMAILO
COC MAMMAIL
COC MAMMAIL
COC MAMMAIL
THE ALABATA
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
RA SCHWIN
R
                                                                                                                                                  8 & 8
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
      В
                                                                  음 경
                                                                                                                                                                                                                                                                 상 염
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                             \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                      ò
```

```
13;
removed. Usage by and for commercial int (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPLWPIYILVP---VVCTCSFDRIRG 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   252 KNKTHFSVRLKFSREK------KAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66 VNLAVADLLITSTVLPPSAIFEILGYWAFGRVFCNVWAAVDVLCCTASIMGLCIISIDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126 IGVSYPLRYPTIVTQKRGLMALLCVWALSLVISIGPLFGWRQPAPEDETIC-----QINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              176 RPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | : | : | : | : EPGYVLFSALGSFYVPLTIILVMYCRVYVVAKRESRGL-----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 NSSDANFSCYHESVLGYRYVAVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60 ANLTLADILIYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -------KSGLKTD------KSDSEQVTLRIHRKNA-QVGGSGVTSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                295 SAK----AQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDA---RVQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
PHOSPHORYLATION (BY PKA) (POTENTIAL).
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SETVFKIAFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLRRKQSSKHTL 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSI-----LKRGPRSFHRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S-palmitoyl cysteine (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1; Length 466;
                                                                                                                               PRIX, A35375, A35375.

InterPro; IPR00276; GPCR_Rhodpsn.

InterPro; IPR000276; GPCR_Rhodpsn.

PROMO117; GPCRHHODPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Multigene family; Phosphorylation; Lipoprotein; Palmitate.

DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELULAR (POTENTIAL).
7 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                  2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
3 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77635153B39E85EC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                 1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S (FOIENTIAL):
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13.8%; Score 281.5; DB 1; 23.0%; Pred. No. 2.9e-12; ive 82; Mismatches 153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ä
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | : : | | : : | : : | | : : | | : : | | | : : | | | : : | | | | : : | : | | | : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
158 NYAQKRILRRVLAMIAGVWLLSGVISSPPLIGWNDWPMEFNDTTP----CQLTEEGGTVI 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The cells.";

"In Neurochem. (4:1287-2395(1995).

"In Neurochem. (4:1287-2395(1995).

"In Uncortainmitter and neuromodulator and direct precursor of neurotransmitter and neuromodulator and direct precursor of octopanine. The rank order is potential and paper octopanine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order is yohimbine and order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order order ord
                                                                                           TTILMGIY---FVLGLSSVGIFYCLIHRQVKRAA-----QALDQYKLRQA------
                                                                                                                                              214 YSSLGSFFIPLFIMTIVYVBIFIATKRKLRERAKASKLNSAMKOOMAAQAVPSSVPSHDQ
                                                                                                                                                                                                           -----VARTDEAMPGRF-----QELDSRLAS
                                                                                                                                                                                                                                                            ESVSSETINHNELPPPPAPPSKEKRRKTKKKSKKKDQAAEEGRFLAPAMVAEDSVTDNSVS
                                                                                                                                                                                                                                                                                                                                                                            334 VGPVAKNHLAEDGYTCTTTTTTTTTTTAVTDSPRSRTASQKGSTAPPTPVQPKSIPVVQF
                                                                                                                                                                                                                                                                                                                                                                                                                                   IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINIL-----DARVQAPRVVHMLA
                                                                                                                                                                                                                                                                                                                         GGP--SEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKOMAEKSPP-EASAKAOP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nervous system,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Neuron, MEDLINE=9279966, PubMed=7760020, MEDLINE=9279966, PubMed=7760020, Huybrechts R., de Loof A.; Vanden Broeck J.G.M., Vulsteke V., Huybrechts R., de Loof A.; Characterization of a cloned locust tyramine receptor cDNA by functional expression in permanently transformed brosophila S2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Locusta migratoria (Migratory locust).
Eukaryota; Metazoa; Arthropoda; Haxapoda; Insecta; Pterygota;
Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
Acridoidea; Acrididae; Oedipodinae; Locusta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      356 ANLTWL --- NGCINPVLYAAMNROFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-JUL 1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
Tyramine receptor 1 (Tyr-Loc1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            484 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A., AND CHARACTERIZATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X69520; CAA49268.1; -.
PIR; S58868; S58868.
HSSP; P29274; IMMH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  first larval stage.
                                                                                                                                                                                                           ---SIHSNH----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=7004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCMI
                                                                                                                                                                                                                                                                     274
                                                                                                                                                                                                                                                                                                                            248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OAR1 LC
Q25321;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
OAR1_LOCMI
                                                                                              ð
                                                                                                                                           g
                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BYML outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67 LLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLGLIALGRYLLIAHPK 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LIVAVLVMPENVAYSLIQRMVFGIVVCKMWLTCDVLCCTASILNLCAIALDRYWAITDPI 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127 LFPQVFSAKGIVLALVSTWVV-GVASFAPL-----WPIYI--LVPVVCTCSFDRIRGRPY 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SVLGYRYVAVSWGVVVAVTG-----TVGNVLTLLALAIQPKLRTRFNLLIANLTLAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBCELLULAR LÓCATION: Integral membrane protein.
-!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                               Vanden Broeck J.J.M.;
Vanden Broeck J.J.M.;
Submitted (NOV-1992) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: G-protein coupled receptor for tyramine, a known neurotransmitter and neuromodulator and direct precursor of octopamine (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92;
                                                                                                                                                          Bukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota, Neopiera, Orthoptera, Orthoptera, Orthoptera, Artidomorpha, Acridoidea, Acrididae, Oedipodinae, Locusta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13.8%; Score 281; DB 1; Length 484; 24.5%; Pred. No. 3.3e-12; ive 63; Mismatches 187; Indels 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELULAR (POTENTIAL).
7 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00001; /rm i; PF00001; PF00005N.
PRINTS; PR00237; GPCRHDODSN.
PROSITE; PS50262; G_PROTEIN RECEP_F1_2; 1.
PROSITE; PS50262; G_PROTEIN RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein.
S4 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLUTAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLUTAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15C10608471D77CD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARG/LYS-RICH (BASIC).
POLY-THR.
         15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
10-OCT-2003 (Rel. 42, Last annocation update)
Putative tyramine receptor 2 (Tyr-Loc2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POLY-PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53488 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; X69521; CAA49269.1; -. HSSP; P29274; IMMH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 24.55
Matches 111, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      87
109
126
147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      411
433
448
470
484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      484 AA;
                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                rissum=Neuron;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIAMOC
               D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
67 LLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPK 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127 LFPQVFSAKGIVLALVSTWVV-GVASFAPL----WPIYI--LVPVVCTCSFDRIRGRPY 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  158 NYAQKRILRRVLAMIAGVWLLSGVISSPPLIGWNDWPMEFNDTTP----CQLTEEQGYVI 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179 TILLMGIY---FVLGLSSVGIFYCLIHRQVKRAA----QALDQYKLRQA----- 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---SIHSNH-----QELDSRLAS 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           248 GGP--SEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPP-EASAKAQP--- 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               334 VGPVARNHLAEDGYTCTTTTTTTTTTAVTDSPRSRTASQKGSTAPPTPVQPKSIPVYQF 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                274 ESVSSETVHINELPPPPAPPSKEKRRKTKKKSKKKEQAAEEGRFLAPAMVAEDSVTDNSVŠ 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNIL-----DARVQAPRVVHMLA 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15 SVLGYRYVAVSWGVVVAVTG-----TVGNVLTLLALALQPKLRTRFNLLIANLTLAD 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92; Gaps
                                                                                                                                                                                                                                                                                                                                                                7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           %; Score 280; DB 1; Length 484;
%; Pred. No. 3.9e-12;
63; Mismatches 187; Indels 9
                                                                                                                                 1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                             Transmembrane, Glycoprotein. EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4484FBC85A810619 CRC64;
                                                                                                                                                                                                                                                   4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                         5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                POLY-PRO,
ARG/LYS-RICH (BASIC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     356 ANLTWL---NGCINPVLYAAMNROFROAYGSIL 385
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm 1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1 1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1 2; 1.
G-protein coupled receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                           203 . BY
292 PO
307 AR
360 PO
53530 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 24.5%;
Matches 111; Conservative 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      484 AA;
                                                                                                                   DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                         ARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                     RANSMEM
                                                                                                                                                                                                                                                     RANSMEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
```

Search completed: September 24, 2004, 08:37:06 Job time: 26 secs

```
September 24, 2004, 07:26:02 ; Search time 131 Seconds
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                     OM protein - protein search, using sw model
                                                                                                                                                                Run on:
```

1017041 seqs, 315518202 residues Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5 Searched:

1017041 Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seq length: 0 Maximum DB seq length: 2000000000

SPTREMBL 25:*
1: Sp_archea:*
2: Sp_bacteria:*
3: Sp_fungi:*
4: Sp_human:*
5: Sp_invertebrate:*
6: Sp_mammal:*
7: Sp_mfn:*
7: Sp_phage:*
7: Sp_phage:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ordent:*
7: Sp_ Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		Description	Q9ngs5 homo sapien	Q8cim5 mus musculu	Q99mx9 mus musculu	Q9w534 drosophila	Q8mrd0 drosophila	077270 drosophila	O77269 drosophila	Q9w533 drosophila	Q8wpa2 bombyx mori	Q9gk99 canis famil	Q8cgi5 mus musculu	Ogdblo mus musculu	Q8bue5 mus musculu	Q8bv77 mus musculu	Q23013 caenorhabdi	Q9gka0 canis famil
SUMMARIES		di 	C9NQS5	QBCIMS	63MK9	Q9W534	QBMRD0	077270	077269	Q9W533	Q8WPA2	Q9GK99	Q8CG15	Q9DBL0	QBBUES	Q8BV77	Q23013	Q9GKA0
		B	4	11	11	Ŋ	ហ	Ŋ	ហ	Ŋ	Ŋ	9	11	11	11	11	Ŋ	9
		Match Length DB	396	396	396	670	670	670	572	572	361	414	459	515	427	466	564	414
	% Query	Match	100.0	85.7	85.6	18.5	18.5	18.5	15.1	15.1	14.5	14.2	14.2	14.2	14.1	14.1	14.0	14.0
		Score	2041	1749	1748	378	378	378	309	309	295.5	289	289	289	288.5	288.5	286.5	285
	Result	No.	-	7	m	4	J.	9	7	œ	σ	10	11	12	13	14	15	91

	Q8awel brachydanio		Q9myi8 oryctolagus		homo		Q964d4 periplaneta	Q9mzu2 oryctolagus	Q9mzu3 oryctolagus	Q9gjul canis famil	ngng 1	Q13729 homo sapien	homod	Q13675 homo sapien	Q8awe0 brachydanio	Q9ud63 homo sapien	Q9psa7 fugu rubrip		Q9hbv6 homo sapien	Q9qw71 rattus sp.	Q8mkj0 cebus apell		Q9nbc8 drosophila	Q8uug8 tetraodon f	Q8jg07 fugu rubrip	Q9n2b6 pan troglod	Q9n2b5 gorilla gor	Q7tla2 brachydanio
Q7T1A1	Q8AWE1	90M060	9 NYI 8	Q90WQ7	Q96RE8	CMSI60	Q964D4	Q9MZU2	Q9MZU3	Q9GJU1	Q8JG01	013729	060451	013675	QBAWEO	Q9UD63	Q9PSA7	077254	O9HBV6	Q9QW71	QBMKJO	013167	Q9NBC8	Qauuga	Q8JG07	Q9N2B6	Q9N2B5	Q7T1A2
13	13	13	ø	13	4	9	Ŋ	9	9	9	13	4	4	4	13	4	13	Ŋ	4	1	9	4	Ŋ	13	13	9	9	13
452	454	464	518	461	466	466	423	425	429	443	420	429	455	499	448	466	511	419	425	559	400	399	357	471	388	363	363	437
14.0	14.0	13.9	13.8	13.8	13.7	13.7	13.6	13.6	13.6	13.6	13.5	13.4	13.4	13.4	13.4	13.4	13.3	13.2	13.2	13.2	13.1	13.1	13.0	12.9	12.8	12.7	12.7	12.6
285	282	283.5	282	281	280	279.5	278.5	278.5	278.5	278.5	276.5	274	274	274	273	273	270.5	270	270	269.5	267.5	267	264.5	263	260.5	259	259	258
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

```
85.6%; Score 1748; DB 11;
85.4%; Pred. No. 6.3e-138;
PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                          Best_Local Similarity 85.63
Matches 339; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                            396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               396 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Receptor.
SEQUENCE
  PROSITE;
                                            SEQUENCE
                       Receptor
                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6XW660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOW
                                                                                                                                                                              င်
                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                     \delta
                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIXILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; BC022249; AAH3349.1; -. MGD; MGI:1934129; Gpr84.

MGD; MGI:1934129; Gpr84.

MGD:00101621; C:integral activity; IEA.

GO; GO:0004872; F:receptor activity; IEA.

GO; GO:0001884; F:rhodopsin-like receptor activity; IEA.

GO; GO:000186; P:G-protein coupled receptor protein signalin. . .; IEA.

InterPro; IPR000276; GPCR Rhodopsn.

Pfam; PF00001; 7tm 1; 1.

PRINTS; PR00237; GPCRRHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                             1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 ILMGIYFVLGISSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT
                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
MCBI_TaxID=10090;
EMBL; AF282693; AAF91467.1; -.
EMBL; AF282693; AAK0187.1; -.
EMBL; BC020614; AAK0187.1; -.
EMBL; BC020614; ABA2014.1; -.
EMBL; AB083586; BAB89299.1; -.
EMBL; AB083586; BAB89299.1; -.
EMBL; AB083586; BAB89299.1; -.
EMBL; AB083586; BAB89299.1; -.
EMBL; AB083586; BCPRCPtein coupled receptor activity, unknow. InterPro; IPR000276; GPCR-Rhodpsn.
PFGm; PF00001; 7tm 1; 1.
PROSTIE: PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                         Length 396;
                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Strausberg R.;
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                               396 AA; 43705 MW; BEEA467DFEB7520B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
G protein-coupled receptor 84.
                                                                                                                                                                                                                                                                                         Score 2041; DB 4;
Pred. No. 1.9e-162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LNGCINPVLYAAMNRQFRQAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                396 AA.
                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                           Best Local Similarity 100.
Matches 396, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-CZECH II;
                                                                                                                                                                                                                            Receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q8CIM5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
QGCIMS
TO CONSTITUTE
AC 004CII
AC 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-M
DT 01-
    QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 LDSGVASRGPSEGISSEPVSAATTQTLEGDSSEAGGQGIRKAAQQIAERSLPEVHRKPRE 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                            61 NLTLADLLYCTLLQPPSVDTYLHLHWRTGAVFCRIFGLLLFTSNSVSILTLCLIALGRYL 120
                                                                                                                                                                                                                                                                                                                                                                                                             LIAHPKLFPQVFSAKGIVLALVSTWVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                            9
                                                                                                                                                                                                                                1 MWNSSDANFSCYHESVLGYRYFAVIWGVAVAVTGTVGNVLTLLALAIRPKLRTRFNLLIA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:1934129; Gpr84.
GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:0001687; F:receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
GO; GO:0001886; P:G-protein coupled receptor protein signalin. . .; IEA.
InterPro; IPRO0270; GPRR-Abdpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wittenberger T., Schaller H.C., Hellebrand S.;
"An expressed sequence tag (est) data mining strategy succeeding in the discovery of new g-protein coupled receptors.";
J. Mol. Biol. 307:799-813(2001).

EMBL; AF272948; AAK01859.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 396;
                                                          Length 396;
                                                                                                                 Indels
43717 MW; 80F0601CBB4B1B03 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43731 MW; D7536A2FB96462D8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q99NX9;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Orphan G protein-coupled receptor 84.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                85.7%; Score 1749; DB 11;
85.6%; Pred. No. 5.2e-138;
live 19; Mismatches 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LNGCINPVLYAAMNROFROAYGSILKRGPRSFHRLH 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      396 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00001; 7tm 1; 1. PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=C57BL;
MEDLINE=21172992; PubMed=11273702;
```

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Amanatides P.G., Scherer S.B., Li P.W., Boans C.A., Gocayne J.D.,
Amanatides P.G., Scherer S.B., Li P.W., Hoskins R.A., Galle R.F.,
Amanatides P.G., Scherer S.B., Li P.W., Hoskins R.A., Galle R.F.,
Amanatides P.G., Scherer S.B., Li P.W., Hoskins R.A., Galle R.F.,
Aborge R.A., Lewis S.B., Richards S., Ashburner M., Henderson S.N.,
Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
Amar K.H., Doyle C., Baxter B.G., Helt G., Nelson C.R., Milklos G.L.G.,
Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley B.M.,
Beson K.Y., Bences P.V., Berman B.P., Bhandari D., Bolshakov S.,
Borkova D., Botchan M.R., Bouler H., Cadieu E., Center A., Chandra I.,
A Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
R.A. Borkova D., Delcher A., Deng Z., Mays A.D., Dew I. Dietz S.M.,
A Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
A Dodson K., Doup L.B., Downes M., Digan-Rocha S., Dunkov B.C., Dunn P.,
A Dodson K., Dong F., Gorgel J.H., Gu Z., Gaua P., Harris M.,
A Hostin D., Haurey D., Heiman T.J., Hernandez J.R., Houck J.,
A Harris N.L., Harvey D., Heiman T.J., Wennison J.A., Ketchum K.A.,
Kimmel B.E., Kodira C.D., Kraft C., Karvitz S., Kulp D., Lai Z.,
Kimmel B.E., Kodira C.D., Kraft C., Karvitz S., Kulp D., Lai Z.,
Kammel B.E., McIntosh T.C., McLeod M.D., Moshrefi A.,
Antklei B., McIntosh T.C., Mochenson D.,
Antkley D., Hishina N.V., Mobarry C., Morris J., Moshrefi A.,
 ö
                                                                                                NITLADLLYCTLLQPFSVDTYLHLHWRTGAVFCRIFGLLLFTSNSVSILTLCLIALGRYL 120
                                                                                                                                                                                          ILMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQE 240
                                                                                                                                                                                                             NETLADELYCTELQPFSVDTYLHLHWRTGATFCRVFGLELFASNSVSILTLCLIALGRYL 120
                                                                                                                                    LIAHPKLFPQVFSAKGIVLALVSTWVVGVASFAPLWPIYILVPVVCTCSFDRIRGRPYTT 180
                                                                                                                                                      LDSRLASGGPSEGISSEPVSAATIQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP 300
                                                                                                                                                                                                                                                                                                      IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLTW 360
                                                                                                                                                                                                                                                                                                                             301 TAGARRATDAPSEFGKVTRMCFAVFLCFALSYIPFILLNILDARGRAPRVVHWVAANLTW 360
                           09
                                          1 MWNSSDANFSCYHESVLGYRYFAIIWGVAVAVTGTVGNVLTLLALAIRPKLRTRFNLLIA 60
                             1 MWNSSDANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIA
  Gaps
  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O9W534;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 24, Last annotation update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
03-322 protein.
EG:22E5.11 OR CG4322.
Drosophila melanogaster (Fruit fly).
Bukaryota, Metazoa, Arthropoda, Haxapoda, Insecta, Pterygota,
Bobtera, Endopterygota, Diptera, Brachycera, Muscomorpha,
Ephydroidea, Drosophilidae, Drosophila.
  38; Indels
                                                                                                                                                                                                                                                                                                                                                                           361 INGCINPVLYAAMNROFRQAYGSILKRGPRSFHRLH 396
  20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                           670
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=Berkeley;
MEDLINE=20196006; PubMed=10731132;
  338; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=7227;
                                                                                                             61
                                                                                                                                         121
                                                                                                                                                                   121
                                                                                                                                                                                             181
                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                         361
    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                     g
                                                                                    8
                                                                                                      원
                                                                                                                                       ö
                                                                                                                                                            qq
                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                          ò
```

```
Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
A Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
A Palazzolo M., Fittman G.S., Pan S., Pollard J., Puri V., Reses M.G.,
A Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
Shue B.C., Sidan-Kiamos I., Simpson M., Skupski M.P., Smith T.,
A Spier B.C., Stadling A.C., Stapleton M., Skupski M.P., Smith T.,
A Svirskas R., Tactor C., Turner R., Venter B., Wang A.H., Wang X.,
M. Mang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
A Millams S.M., Woodage T., Worley K.C., Mu D., Yang S., Zheng L.,
A te J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zheng L.,
A zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
A gibbs R.A., Nyers E.W., Rubin G.M., Venter J.C.;
I'll Science 287:2185-2195(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Celliker S.B., Adams M.D., Kronmiller B., Wan K.H., Holt R.A.,
Celliker S.B., Adams M.D., Kronmiller B., Wan K.H., Holt R.A.,
By Evans C.A., Gocayne J.D., Danatides P.G., Brandon R.C., Rogers Y.,
Branzon J., An H., Baldwin D., Banzon J., Beeson K.Y., Busam D.A.,
Carlson J.W., Center A., Champe M., Davenport L.B., Dietz S.M.,
Dodson K., Dorsett V., Doup L.E., Doyle C., Dresnek D., Farfan D.,
Reritera S., Frise E., Galle R.F., Garg N.S., George R.A.,
Gonzalez M., Houck J., Hoskins R.A., Hostin D., Howland T.J.,
Ibegwam C., Jalali M., Kruse D., Li P., Mattei B., Moshrefi A.,
McIntosh T.C., Moy M., Murphy B., Nelson C., Nelson K.A., Nunco J.,
Rapicton T.C., Moy M., Park S., Patel S., Pietlfer B.,
Rapleton M., Strong R., Svirskas R., Tector C., Tyler D.,
Milliams S.M., Zaveri J.S., Smith H.O., Vener J.C., Rubin G.M.;
"Sequencing of Drosophila melanogaster genome.";
Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26 ADATGESQSLLTFAAVMT---FLIMIVGICGNLLTVVALLKCPKVRNVAAAFIISLCIAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 ANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALAIQPKLRTRFNLLIANLTLAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:0004872; F:receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
GO; GO:0001186; P:G-protein coupled receptor protein signalin. .;
PINENDO : IPR000276; GPCR_Rhodopsn.
PFam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLUIAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
EMBL, AR003422; AAF45709-22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
Matthews B.B., Bayraktaroglu L., Campbell I Bradecky P., Tubang Y., Kaminker J.S., Prochnik S.B., Smith C.D., Tuby J.L., Bergman C., Berman B., Carlson J.W., Celniker S.E., Tupy J.L., Drysdale R., Emmert D., Frise E., de Grey A., Harris N., Krommiller B., Marshall B., Milburn G., Richter J., Russo S., Searle S.M.J., Smith E., Shu S., Smutniak F., Whitfield E., Sabburner M., Gelbart W.M., Rubin G.M., Mungall C.J., Lewis S.E., Annocation of Drosophila melanogaster genome.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Adams M.D., Celniker S.E., Gibbs R.A., Rubin G.M., Venter C.J., Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 670;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18.5%; Score 378; DB 5; Length 67:
26.4%; Pred. No. 5.3e-23;
iive 79; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90B894941A366546 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FRANTS: PRO0237, GPCRRHODOPSN.
PROSITE; PRO0237, GPCRRHODOPSN.
PROSITE; PS50237; G PROTEIN RECEP FI_1; 1.
PROSITE; PS50262, G_PROTEIN_RECEP FI_2; 1.
SPCOSTE; PS50262, G_PROTEIN_RECEP FI_2; 1.
SECURICE COUPLED FECEPORI; RECEPTOR: TRANSMEMBRANE.
SEQUENCE 670 AA, 71932 NW, 908894941A366546 CRC6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 26.49
Matches 102, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEOUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
```

```
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1998 (
01-NOV-1998 (
01-JUN-2003 (
                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             077270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
                                                                                                                                    ò
                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DER REPERENT SON DE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                        250
                                                                   142
                                                                                                                                    181
                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 -IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVOAPRVVHMLAANLT 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPK 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ||:||:||:|| |:|| ||:|| ||:|:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67 LLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPK 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL, AY121660; AAM51987.1;

ElyBace; FBGD002531; Ec:22E5.11.

GO; GO:0016021; Cintegral to membrane; IEA.

GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.

GO; GO:0001864; F:rhodopsin-like receptor protein signalin. .; IEA.

Interpro; IPR000276; GPCR_Rhodopsn.

PERMITS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; GPROTEIN_RECEP_F1_1; 1.

PROSITE; PS00262; GPROTEIN_RECEP_F1_2; 1.

SEQUENCE 670 AA; 71917 MW; 3EBE65941C517D1D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82
                                          AS-TGSGALPSGAECQP----SNRVSSDSSSSSFSIDVETAP---SGKQQPT
                                                                                                                                LFPQVFSAKGIVLALVSTWVGVASFAPL----WPIYILVPVVCTCS-FDRIRGRPYTTI
                                                                                                                                                                                  LYARIYKRHWIAVMIAACWLFSYGMQLPTLLGEWGRFGYDSRLQTCSIMTDDHGHSSKTT
                                                                                                                                                                                                                                                                                                                                 LFITAFVIPCLVIIACYAKIFWVWHKSEQRLKRHATKQNSI--------PNNLRPL
                                                                                                                                                                                                                                                                                                                                                                                                        DSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP~
                                                                                                                                                                                                                                                                LMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDBAMPGRFQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7 ANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALALQPKLRTRFNLLIANLTLAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADATGFSQSLLTFAAVMT---FLIMIVGICGNLLTVVALLKCPKVRNVAAAFIISLCIAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J., Chawpe M., Chavez C., Dorsett V., Dresnek D., Farfan D., Frise E., George R., Gonzalez M., Guarin H., Krommiller B., Li P., Liao G., Miranda A., Mungall C.J., Nunoo J., Pacleb J., Paragas V., Park S., Patel S., Phouanenavong S., Wan K., Yu C., Lewis S.E., Rubin G.M., Celniker S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drosophila melanogaster (Fruit fly).
Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID=7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 670;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18.5%; Score 378; DB 5; Length 67
26.4%; Pred. No. 5.3e-23;
ive 79; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :|:||||::| |||:|| XLSACINPIIYVIMNKQYRKAYKTVV 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WINGCINPVLYAAMNROFROAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-OCT-2002 (TrEMBLrel. 22, 01-OCT-2002 (TrEMBLrel. 22, 01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EG: 22E5.11 OR CG4322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 102; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=Berkeley;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-2002
01-OCT-2002
                                                                                                                                                                                                143
                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                    203
                                                                                                                                                                                                                                                                                                                                                                                                        242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             353
                                                            83
                                                                                                                                127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q8MRD0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q8MRD0
                                                 g
                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                            à
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
10;
                                                        202
                                                                                                                       241
                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                          294
                                                                                                                                                                                                                                                                                                                                                                          359
                                                                                                                                                                                                                                                                                                                                                                                                                 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                       251 AS-TGSGALPSGAECQP----SNRVSSDSSSSFSIDVPETAP---SGKQQPT
                                                                                                                                                                                                                                                                                                                                                                             301 -IKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVHMLAANLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              143 LYARIYKRHWIAVMIAACWLFSYGMQLPTLLGEWGRFGYDSRLQTCSIMTDDHGHSSKTT
LFPQVFSAKGIVLALVSTWVVGVASFAPL----WPIYILVPVVCTCS-FDRIRGRPYTTI
                                                                                                                                                                                                                                                  DSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP-
                                                                                                                       LMGIYFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26 ADAIGESQSLLTFAAVMT---FLIMIVGICGNLLTVVALLKCPKVRNVAAAFIISLCIAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83 LLFCALVLPPOGLRFVQGTWRHGQVLCRLIPPIQYGNIGVSLLCIAMITINRYVMITHHG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                127 LFPQVFSAKGIVLALVSTWVVGVASFAPL----WPIYILVPVVCTCS-FDRIRGRPYTTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANFSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALAIQPKLRTRFNLLIANLTLAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.

Wirphy L., Harris D., Barrell B.;

"Sequencing the distal X chromosome of Drosophila melanogaster.";

Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AL031765; CAA2123.1;
PIR; T13739; T13739.
PIYABAS, FB00025631; GG:22E5.11.
GO; GO:001601; C:inicgral to membrane; IEA.
GO; GO:001584; F:rhodopsin-like receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor protein signalin.
InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EG:22E5.11 protein.
EG:22E5.11 OR CG4322.
Drosophila melanogaeter (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Bukaryota; Endoptera; Arthropoda; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID=7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 670;
                                                                                                                                                                                   203 LFITAFVIPCLVIIACYAKIFWVVHKSEORLKRHATKONSI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
18.5%; Score 378; DB 5; Length 67
Best Local Similarity 26.4%; Pred. No. 5.3e-23;
Matches 102; Conservative 79; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Benos P.; Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00237; GPCKRHODOPSN.
PR051TF; PS00237; GPROTEIN RECEP FI_1; 1.
PROSITE; PS02026; G_PROTEIN RECEP FI_2; 1.
SEQUENCE 670 AA; 71918 NW; 1E802ZC0882A9E41 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TrEMBLrel. 08, Created)
(TrEMBLrel. 08, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         670 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360 WLNGCINPVLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         353 YLSACINPIIYVIMNKQYRKAYKTVV 378
```

OY 220 ASIHSNHVARIDEAMPGREQELDSRIASGGPSEGISSEPVS	PREDIUT B OW5533 PRELIMINARY, PRT; 572 AA. 1D 09W533 DO 07W533 PRELIMINARY, PRT; 572 AA. OW5534 DO 07W533 DO 07W534 DO 07W535 DO 07W535 DO 07W535 DO 07W535 DO 07W53200 (TERMELAE] 13, Lest sequence update) DO 07W53200 (TERMELAE] 13, Lest sequence update) DO 07W53200 (TERMELAE] 13, Lest sequence update) DO 07W53210 MC CASING DO 07W53200 (TERMELAE] 13, Lest sequence update) DO 07W53210 MC CASING DO 07W50200 (TERMELAE] 13, Lest sequence update) DO 07W50200 (TERMELAE] 13, Lest sequence update) DO 07W50200 (TERMELAE] 13, Lest sequence update) DO 07W50200 (TERMELAE] 14, Lest sequence update) DO 07W50200 (TERMELAE] 15, Lest sequence update) NO NOBLINEARD DEPOSODNINGS (TERMELAE) 18, Hearthore No. Deposodnings (TERMELAE) RR STRUINEARD 1900 (TERMELAE) 19, Lest sequence update) RR Adams MD, Celliker SE, Holfs MR, Hearthore N. McChen L.X. RA Adams MD, Celliker SE, Holfs MD, Zhang O, Chen L.X. RA Adams MC, Lest SE, R. Richards S, Abhurner N. Henderson S.N., RA SHILD RK, Lest SE, R. Richards S, Abhurner N. Henderson S.N., RA Banlaw R.W., Beans P. H.W., Barrals R.G. (Change N. M., Petelfer S.D., RA BAND N.C. (Roger YH.C., Barker E, G., Hell C, Nelson C., Baldwin D, RA Banlaw R.W., Benck J. J. Addrews Feathore (C., Baldwin D, RA Banlaw R.W., Benck J. B., Develor L. B., Davise V. B., Abrill D., Banlaw R.W., Benck J., Broketein P., Broket	
OY 182 LMGIYFVLGLSSVQIFYCLIHROVKRAAQALDOYKLRQASIHSNHVARTDEAMPCRFQEL 241 Db 203 LFITAFVIPCLVIIACYAKIFWVHKSEQRLKRHATKQNSIPNNLRPL 250 QY 242 DSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQP- 300	PREJULT 7 O'77269 DT 077269 DT	

```
Cloning of a Functional Allatostatin Gut/Brain Receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234 -TRLWKSAPGGRVSAE----
                                                                                                                                                                                                                                                                                          22.4%;
                                                                                                                                                                                                                                                                                      Sest Local Similarity 22.48
Matches 88; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Canis familiaris (Dog)
                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                       43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09GK99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9GK99
  à
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   156
                                                                                                                                                                                                                                                                                                                              128
                                                                                                                                                                                                                                                                                                                                            276
                                                                                                                                                                                                                                                                                                                                                                                129 PQVFSAKGIVLALVSTWVVGVASFAP----LWPIYILVPVVCTCSFDRIR-GRPYTTILM 183
                                                                                                                                                                                                                                                                                                                                                                                                                                   ----QALDQYKLRQ 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |: : | : | : | 337 KVTISS--GEANEPIAGRPFVVEENLAYIDDNASTDSLPISYSIRRRDQDQQPPPVDANV 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                           277 IAAFMVPCICIVICYARİFLLÜRKAAİRAGTAGKTNVSDVTPSSAPQHQIQAMATPKKPE 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   395 VLKEREKERDRDQEKVSLGRSQTQLEMGKTHGKNPITTSLRTTSFTRFSPRKSHYASMGN 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDARVQAPRVVH-- 352
                                                                                                                                                                                                                                                                            68
                                                                                                      . .; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        _01-MRR-2002 (TrEMBLrel. 20, Created)
01-MRR-2002 (TrEMBLrel. 20, Last sequence update)
01-MN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Allatrostatin receptor BAR.
Bombyx mori (Silk moth).
Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
NCBL_TaxID=7091;
                                                                                                                                                                                                                                                                                          YCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLF
                                                                                                                                                                                                                                                                                                                                                                                                 9 FSCYHESVLGYRYVAVSWGVVVAVTGTVGNVLTLLALALQPKLRTRFNLLIANLTLADLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TSNASSIYPGR----MSAKDRRLLKMILVIFVWFVICYLPITVAKIWKSATE----VHWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----AATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEA-----
         -1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY)
-1- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
EMBL; ABOO3422; AF45710.11.

GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:0004872; F:receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
GO; GO:0001264; P:C-Procein coupled receptor protein signalin. .;
                                                                                                                                                                                                                                                  90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN=LYON 200 BA/LyON 300 AB; STRAIN=LYON 200 BA/LyON 300 AB; MEDLINE=21601656; PubMed=11590150; Secher T., Lenz C., Cazzamali G., Sorensen G., Williamson M., Hansen G.N., Svane P., Grimmelikhuijzen C.J.P.;
                                                                                                                                                                                                                     Length 572;
                                                                                                                                                                                                                                                 Indels
                                                                                                                           PERNTS; PR00237; GFCRRHODOPSN.
PROSTTE; PS00237; GFCRRHODOPSN.
PROSTTE; PS02267; G PROTEIN RECEP F1 1; 1.
G-protein coupled receptor; Receptor; Transmembrane.
SEQUENCE 572 AA; 64317 MW; 8E19D4E0EE2122C6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ASIHSNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVS
                                                                                                                                                                                                                      15.1%; Score 309; DB 5; L 22.4%; Pred. No. 2.6e-17; tive 83; Mismatches 180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               353 -MLAANLTWINGCINPVLYAAMNRQFRQAYGSILK 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                   184 GIYFVLGLSSVGIFYCLIHRQVKRAA-----
                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                    Local Similarity
Les 102; Conserv
                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QBWPA2;
                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q8WPA2
 d
                                                                                                                                                                                                                                                                                                                           \delta
                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
RI TALLECULAR L'ULLING DE TALLECULAR ALLECULAR DESCRICATION OF PLANT TO THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRICATION OF THE TALLECULAR DESCRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             80 TYLHIHWRIGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHFKLFPQVFSAKGIVL 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          140 ALVSTWVVGVASFAPLWPIYILVPVVC------TCSFDRIRGRPYTTILMGI 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMAEKSPPEASAKAQPI 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --RVOAPRVVH 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         162 AIACIWVVILTTAIPVG-----ICHGEREYSYFNRNHSSCVFLEBRGYSKLGFQMSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              102 DYVMPRWPRGDWWCKVVQYFIVVTAHASVYTLVLMSLDRFMAVVHPIASMSIRTEKNALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Y---FVLGLSSVGIFY-CLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE=20510028; PubMed=11054572; MEDLINE=20510028; PubMed=11054572; Meycong H., Jeoung D., Kim H., Ha J.H., Lee Y., Kim K.H., Park C., Kanng B.; Mennes and functional expression of canine dopamine D2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia; Eutheria, Carnivora, Fissipedia, Canidae, Canis.
NCBL_TaxID=9615,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 361;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           302 KGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---SRRGRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01.MAR-2001 (TrEMBLrel. 16, Created)
1-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01.-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Dopamine D2 receptor short isoform.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14.5%; Score 295.5; DB 5; 22.4%; Pred. No. 1.9e-16; iive 61; Mismatches 111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 VLA----YMNSCVNPVLYAFLSENFRVAFRKVM 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             214 FLSSYVIPLALISVLYMCML-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               353 MLAANLTWLNGCINPVLYAAMNRQFRQAYGSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             414
```

```
Receptor.
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137
                                                                                                                                                                                                                                                                                                                                                                                                                        17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         112
                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9DBL0
                                                                                                                                                                                                                                                                          Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
Q9DBL0
S T K K K K S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HIDDIAN BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR BERNAR B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      --YLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKR 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 151 RVTVMIAIVWVLSFTISCPL----LFGLNNTDQNECIIANPAFVVYSSIVSFYVPFIVT 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHVARTDEAMPGRFQELD-SRLASGG 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PSEGISSEPVSAATTQTLEGDSSEVG-------DOINSKRAKOMAEKSPPE 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPERTRYSPIPPSHHOLTLPDPSHHGLHSTADSPAKPEKNGHAKDHPKIAKIFEIOSMPN 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     294 ASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDARVQAPRVVHM 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               320 GKTRIS-LKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCEC-NIPPV 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79 DTYLHL--HWRTGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSAKG 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137 IVLALVS-TWVVGVASFAPLWPIYILVPVVCŢCSFDRIRGRP----YTTIL-MGIYFVLG 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92
                Gene 257:99-107(2000).

Gene 257:99-107(2000).

Gene 257:99-107(2000).

Gene 257:99-107(2000).

Gene 257:99-107(2000).

Gene 257:99-107(2000).

Gene 257:99-107(2000).

Gene 257:99-107(2000).

REMBL, ARC29964; AAG34497.1;

GO; GO:0004892; F:receptor activity, IEA.

GO; GO:000481; F:receptor activity, IEA.

GO; GO:000186; F:receptor activity, IEA.

GO; GO:000186; F:receptor activity, IEA.

GO; GO:000186; F:receptor activity, IEA.

GO; GO:000186; F:receptor activity, IEA.

GO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

GO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:receptor activity, IEA.

RO; GO:000186; F:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YRYVAVSWGVVVAVTGTVGNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQPFSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strausberg R.;
Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
Submitted (AUG-2002) to the EMBL/GenBank/DDBJ databases.
EMBL, BG037002.1;
GO, GO:0004872; Fireceptor activity; IRA.
GO, GO:0001884; Firhodopsin-like receptor activity; IEA.
GO; GO:000186; Figherein coupled receptor signalin.
InterPro; IPR000276; GPCR_Rhodopsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14.2%; Score 289; DB 6; Length 414; 27.1%; Pred. No. 8.1e-16; Live 68; Mismatches 176; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2003 (TrEMBLrel. 23, Last sequence update) 01-OCT-2003 (TrEMBLrel. 25, Last annotation update) Similar to adrenergic receptor, alpha 1b (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LAANLTWL---NGCINPVLYAAMNRQFRQAYGSIL 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2003 (TrEMBLrel. 23,
01-MAR-2003 (TrEMBLrel. 23,
01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN=FVB/N; TISSUE=Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  107; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
CLIALGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPL--WPIYILVPVVCTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       288 EKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLL---LNILDAR 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAIN=C5BL/61; TISSUE-Liver;

Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

Rawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

A Arakawa T., Hara A., Futunishi Y., Konno H., Adachi J., Futuda S.,

A Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

Saito T., Okazaki Y., Golobori T., Bono H., Kasukawa T., Saito R.,

Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

Radota K., Matsud H.A., Ashburner M., Batalov S., Casavant T.,

A Ruchl P., Lewis S., Matsuo Y., Nikaido I., Fesole G., Quackenbush J.,

Ruchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

Schriml L.M., Staubli F., Suzuki R., Tomita M., Magner L., Washio T.,

Bake J., Boffelli D., Bojunga N., Carrinci P., de Bonaldo M.F.,

Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,

A Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,

Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,

A Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RTRFNLLIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTL 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----NSKELTLRIHSKNFHE---------271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          228 ARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                272 -GHNPRSIAVKLFKFSRE-KKAAKTLGIVVGM-----FILCWLPFFIALPLGSLFST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 169 SFDRIRGRPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHV
                                                                                                                                                                                                                                                                                                                                                                                                                            2 WNS-SDANFSCYHE----SVLGYRYV--AVSWGVVVA---VTGTVGNVLTLLALAIOPKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSILK---RGPRSFHR 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                       74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 459;
                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                  50751 MW; C2A7D2EB44816338 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-UNN-2001 (TrEMBLrel. 17, Created)
01-UNN-2001 (TrEMBLrel. 17, Last sequence update)
01-UUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                   14.2%; Score 289; DB 11; 25.2%; Pred. No. 9.2e-16; tive 74; Mismatches 161;
Pfam; PF00001; 7tm 1; 1.

PROSTIT: PRO0237; GPCRHODOPSN.

PROSTITE; PS00237; GPROTEIN RECEP F1 1; 1.

PROSTITE; PS0262; GPROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Adrenergic receptor, alpha 1b
                                                                                                                                                                                                                                                                                                                 al Similarity 25.2
104; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse)
                                                                                                                                                                               459 4
459 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
```

```
Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297
                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 344
                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08BV77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8BV77;
                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
 ò
                                                                                                                                                                                                                                                                                                                                                                                                               \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112 CLIALGRYLLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPL--WPIYILVPVVCTC 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RTRFNLLIANLTLADLLYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTL 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       288 EKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLL---LNILDAR 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----- DTLSSTKAK--- 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . .; IEA.
                                                                                                                                         the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs."; Nature 420:563-573(2002).
   ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         169 SFDRIRGRPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQALDQYKLRQASIHSNHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           228 ARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRAKQMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       272 -GHNPRSSIAVKLFKFSRE-KKAAKTLGIVVGM-----FILCWLPFFIALPLGSLFST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 WNS-SDANFSCYHE----SVLGYRYV--AVSWGVVVA---VTGTVGNVLTLLALAIQPKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74; Gaps
                                                                                                                                                                                       Nature 420:563-573(2002).

-- SUGELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY)

--- SIMILARITY: BELONGS FORMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

EMBL, AKO04891; BAB23647.1; --.

EMBL, AKO43877; BAC31691.1; --.
 ., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               345 VQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSILK---RGPRSFHR 394
                           Hayashizaki Y.;
"Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                  MOD; MGI:104774; Adraib.
MOD; MGI:104774; Adraib.
GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:0004025; F:receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
GO; GO:0007186; P:G-protein coupled receptor protein signalin.
InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
14.2%; Score 289; DB 11; Length 515;
Best Local Similarity 25.2%; Pred. No. 1.1e-15;
Matches 104; Conservative 74; Mismatches 161; Indels 7.
                                                                                                                                                                                                                                                                                                                                                                                                                69D724E9978F81C1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                      Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----NSKELTLRIHSKNFHE------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ź
                                                                                                                                                                                                                                                                                                                                                  PRINTS, PRO0237, GPCRRHODOPSN.
PROSITE; PS00237; G PROTEIN RECEP F1 1; 1.
PROSITE; PS05022; G PROTEIN RECEP F1 2; 1.
G PROTEIN RECEP F1 2; 1.
G PROTEIN RECEP F1 2; 1.
G PROTEIN RECEP F1 2; 1.
G PROTEIN RECEP F1 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                 SEQUENCE FROM N.A. TISSUE=Cortex; STRAIN=CSPEL/64; TISSUE=Cortex; MEDLINE=22354683; Pubmed=12466851; The FANTOM CONSORTIUM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-2003 (TrEMBLrel. 23, 01-MAR-2003 (TrEMBLrel. 23, 01-OCT-2003 (TrEMBLrel. 25,
                                                         Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                             InterPro; IPR000276
Pfam; PF00001; 7tm_
                Wynshaw-Boris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QBBUES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OSBUES
ID OS
AC OS
DT O1
DT O1
OE AG
 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DD
DD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
```

Adrenergic receptor.

ADRA1A.

```
14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120 LLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPLWPIYILVP---VVCTCSFDRIRG 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FPNFKPPETVFKIVFWLGYLNSCINPIIYPCSSQBFKKAFQNVLRIQCLRRRQSSKHAL 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                176 RPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQAL------DQYKLRQASIH 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            224 SNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRA 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----PAEG---SGVSSAKNKT-------HFSVRLL 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ---RVQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSI----LKRGPRSFHRL 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
                                          SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAINE-213-46681; PubMed=1246681;

The FANTOM Consortium,

The RIERA Genome Exploration Research Group Phase I & II Team;

A the RIERA Genome Exploration Research Group Phase I & II Team;

The Allstan Genome Exploration Research Group Phase I & II Team;

The Allstan Genome Exploration Research Group Phase I & II Team;

The Allstan Genome Exploration Research Group Phase I & II Team;

The Allstan Genome Exploration of Muchanish Allstan Genome Exploration of Muchanish Allstan Genome Exploration of Blood pressure; IMP.

REMED: AROBESS: BACASAS.

REMED: PROBOSIT: PROGOSTS: GPRCR-Rhodpsn.

PRINTS: PROGOSTS: GPRCR-Rhodpsn.

PRINTS: PROGOSTS: GPRCTEIN RECEPFI 1; 1.

PROSITE: PROGOSTS: GPRCTEIN RECEPFI 1; 1.

PROSITE: PROGOSTS: GPRCTEIN RECEPFI 2; 1.

SEQUENCE 427 AA; 47515 MW; 3810E9D5F5A09317 CRC64;
                                                                                                                                                                   οĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60 ANLTLADLLYCTLLOPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       284 KOMAEKSPPEASAKAQPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLNILDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 NSSDANFSCYHESVLGYRYVAVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADRAIA.
Nus musculus (Mouse).
Eukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14.1%; Score 288.5; DB 11; Length 427; Similarity 23.1%; Pred. No. 9.2e-16; Onservative 78; Mismatches 148; Indels 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=CS7BL/6J; TISSUE=Spinal cord
MEDLINE=22354683; PubMed=12466851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23,
23,
25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2003 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAR-2003 (TrEMBLrel. 01-OCT-2003 (TrEMBLrel. Adrenergic receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238 RKNV-----
NCBI TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI TaxiD=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      263 KFSREK-
```

당

```
66 VNLAVADLLLTSTVLPFSAIFEILGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRY 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126 IGVSYPLRYPTIVTQRRGVRALLCVWALSLVISIGPLFGWRQQAPEDETIC-----QINE 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60 ANLTLADILYCTLLQPFSVDTYLHLHWRTGATFCRVFGLLLFASNSVSILTLCLIALGRY 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLIAHPKLFPQVFSAKGIVLALVSTWVVG-VASFAPLWPIYILVP---VVCTCSFDRIRG 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RPYTTILMGI-YFVLGLSSVGIFYCLIHRQVKRAAQAL-------DQYKLRQASIH 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNHVARTDEAMPGRFQELDSRLASGGPSEGISSEPVSAATTQTLEGDSSEVGDQINSKRA 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----PAEG---SGVSSAKNKT------HFSVRLL 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KOMAEKSPPEASAKAOPIKGARRAPDSSSEFGKVTRMCFAVFLCFALSYIPFLLLINILDA 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------KAAKTLGIVVGCFVLCWLPFFLVMPIGS 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---RVQAPRVVHMLAANLTWLNGCINPVLYAAMNRQFRQAYGSI-----LKRGPRSFHRL 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         297 FFPNFKPPETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLRRRQSSKHAL 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 NSSDANFSCYHESVLGYRYVAVSWGVVVA---VTGTVGNVLTLLALAIQPKLRTRFNLLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                       the RIKEN Genome Exploration Research Group Phase I & II Team, "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs.";

Nature 420:563-573(2002).

EMBL, ARC795997; BAC737694.1; -.

EMBL, ARC795997; BAC37694.1; -.

GO; GO:0008217; P:regulation of blood pressure; IMP.

InterPro: IFR000227; Adraia.

PROMOST, PRO00217; ETR RECEP RICHOPOPSN.

PRINTS; PRO00217; GPCRRHODOPSN.

PRONTE; PRO0237; GPCRRHODOPSN.

PRONTE; PRO0237; GPCRRHODOPSN.

PROSTITE; PRO0237; GPCRRHODOPSN.

PROSTITE; PRO0237; GFCRRHODOPSN.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
Rhabditidae; Peloderinae; Caenorhabditis.
NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14.1%; Score 288.5; DB 11; Length 466; 23.1%; Pred. No. 1e-15; ive 78; Mismatches 148; Indels 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Waterston R.; "Genome sequence of the nematode C. elegans: a platform for invostigating biology. The C. elegans Sequencing Consortium."; Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hypothetical protein M03F4.3 M03F4.3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1996 (TrEMBLrel. 01,
01-OCT-2002 (TrEMBLrel. 22,
01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 23.1 97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Caenorhabditis elegans
   FANTOM Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RKNV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. STRAIN=Bristol N2; Fulton L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KFSREK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1996
01-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          023013;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        023013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RAY RAT RAT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT DR RT 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - 염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
```

```
299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               187 KMAAGILTAVWAISFVVCSPPW----VIPSWNLFIDNNNNTGSSEDFKCAYS-PSVAYRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300 TASAPHSRTRVQVNHNCGRVNYSVRPVEYANRVENSLKPSHERFDSTDCEDSPPNGDSLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76 FSVDTYLHLH-WRIGATFCRVFGLLLFASNSVSILTLCLIALGRYLLIAHPKLFPQVFSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         127 MSLLDLLHNHRWPLGRFLCRMWATSDVLLCTASILNLCVISLDRYFAITSPLKYPRTRSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KGIVLALVSTWVVGVASFAPLWPIYILVP-------VVCTCSFDRIRGRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YTT------ILMGIYF-----VIGLSSVGIFYCLIHRQVKRAAQALDQYKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     219 QAS----IHSNH-----VARTDEAMPGRFQELDSRLASGGPSEGISSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360 ---AGTICNISMSLVTNSPPNGLOKEAKNSMERECHSLADIVNSADIPVRKNTEVGVAPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329 ALSYIPFLLLNILDARVQAP----RVVHMLAANLTWL---NGCINPVLYAAMNRQFRQAY
                                                                                                                                                                                                                                                                                                                                                                                                                     17 LGYRYVAVSWGVVVAVTGTV-GNVLTLLALAIQPKLRTRFNLLIANLTLADLLYCTLLQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -SKRAKOM-AEKSPPEASAKAO---PIKGARRAPDSSSE-----FGKVTRMCFAVFLCF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417 LSKRARQCNARLQPNNLLQKAHEHYQINGPGKAVRGSKEKMVYMRERKALKTIGIVVLGF
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                             Wormpep; MOSF4.3; CE31203.

GO; GO: 0016021; C: integral to membrane; IEA.

GO; GO: 001184; P: rhodopsin-like receptor activity; IEA.

GO; GO: 001186; P: Proprotein coupled receptor protein signalin.

InterPro; IPR00276; GPCR_Rhodpsn.

Pfam; PF00001; Tem_1; I.

PROSTE; PR00237; GPCRHODPSN.

PROSTE; PS00237; G_ROTEIN_RECEP_F1_1; I.

Hypochetical protein.

SEQUENCE 564 AA; 63274 MW; 774931C2279DA67D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                     125;
                                                                                                                                                                                                                                                                                                                                                       DB 5; Length 564;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----QTLEGDSSEVGDQIN-----
                                                                                                                                                                                                                                                                                                                                                   14.0%; Score 286.5; DB 5; Length 8 22.5%; Pred. No. 1.9e-15; ive 73; Mismatches 184; Indels
"The sequence of C. elegans cosmid M03F4.";
Submitted (JUL-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Search completed: September 24, 2004, 08:39:27 Job time : 134 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      382 GSILKRGPRSFHR 394
                                                                                                                  EMBL; U64601; AAB04573.2;
PIR; T25837; T25837.
                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 22.5
Matches 111, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                258 PVSAATT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     537 RDLLSFGCVQHHR
                                                                                                  (JUN-2002)
                                                  SEQUENCE FROM N.A. STRAIN=Bristol N2;
                                                                                   Waterston R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  280
                                                                                                                                                                                                                                                                                                                                                       Query Match
 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

14;

ე ტ 65